

BARODA PALACE: THE PRINCIPAL TOWN RESIDENCE OF H.H. SIR SYAJI RAO, G.C.S.I., Maharaja Sahib, Gaekwar.—II. By ROBERT FELLOWES CHISHOLM [*F.*], Fellow of Madras University.

THE five illustrations given with these notes formed part of the exhibits which accompanied my Paper on Lakshmi Vilāsa Palace, Baroda [p. 421 *et seq.*]. The first is produced from a photograph of the western façade before Mr. Goldring had laid out the garden which now surrounds the building. The near view of the Durbar Hall and Porch conveys a fair idea of the effect of the detail, when seen close; it also illustrates, what I conceive to be one of the defects of this particular style, its structural untruthfulness. The forms and adornments of the arches on the left suggest the possibility of the whole being carved from a solid block of stone; in reality, the joints cut the arabesquing anywhere, and when age weathers their angles and the joint lines become prominent, they will claim equal attention with the forms and ornamentation.

My three etchings, which follow, have been transferred to stone, and to this may be ascribed their thin appearance. The bronze statue is one of the many works of Signor Felici. The upper part of the Entrance Hall was originally a room, but the central part of the floor was subsequently removed to add light and interior effect. The third etching represents (I am afraid very inadequately) the luxuriance of the foliage in the courtyards.

In looking over my reply to the points raised in discussion, I am but too conscious that a laudable desire to bring the proceedings to a close caused me to scamper over ground which demanded closer attention, and I deem it a favour on the present occasion to be permitted to answer more fully the various points raised.

First, in regard to domical construction, I do not seem to have made the principles of construction adopted by me, any clearer than when, on a former occasion, I attempted a description of the larger dome of the Baroda College.* What I venture to claim is, first, a saving of material, and, secondly, a reduction of all cross-strains and thrusts to simple vertical pressure. The first object is secured by making the form of the inner supporting dome correspond roughly to the maximum line of pressure, so that the point of rupture between the apex and base vanishes, and the resultant of all the forces is resolved into vertical pressure and outward thrust at the base, the latter being effectually dealt with and eliminated by the circular base tie; the dome rests on its supports without outward thrust, like an inverted basin on a table. It will be convenient, I think, to leave for the present the question of pendentives, and to consider the dome proper. The simplest and most stable contrivance for covering a circular space is a hollow cone. The walls of a hollow cone with a base as large as the dome at Beejapore might be reduced to the thickness of 24 inches or less, instead of 10 feet. Sir Christopher Wren found every dome of large dimensions in Paris and the other parts of France he visited structurally defective, and so adopted the simple hollow cone. From the inside he suspended

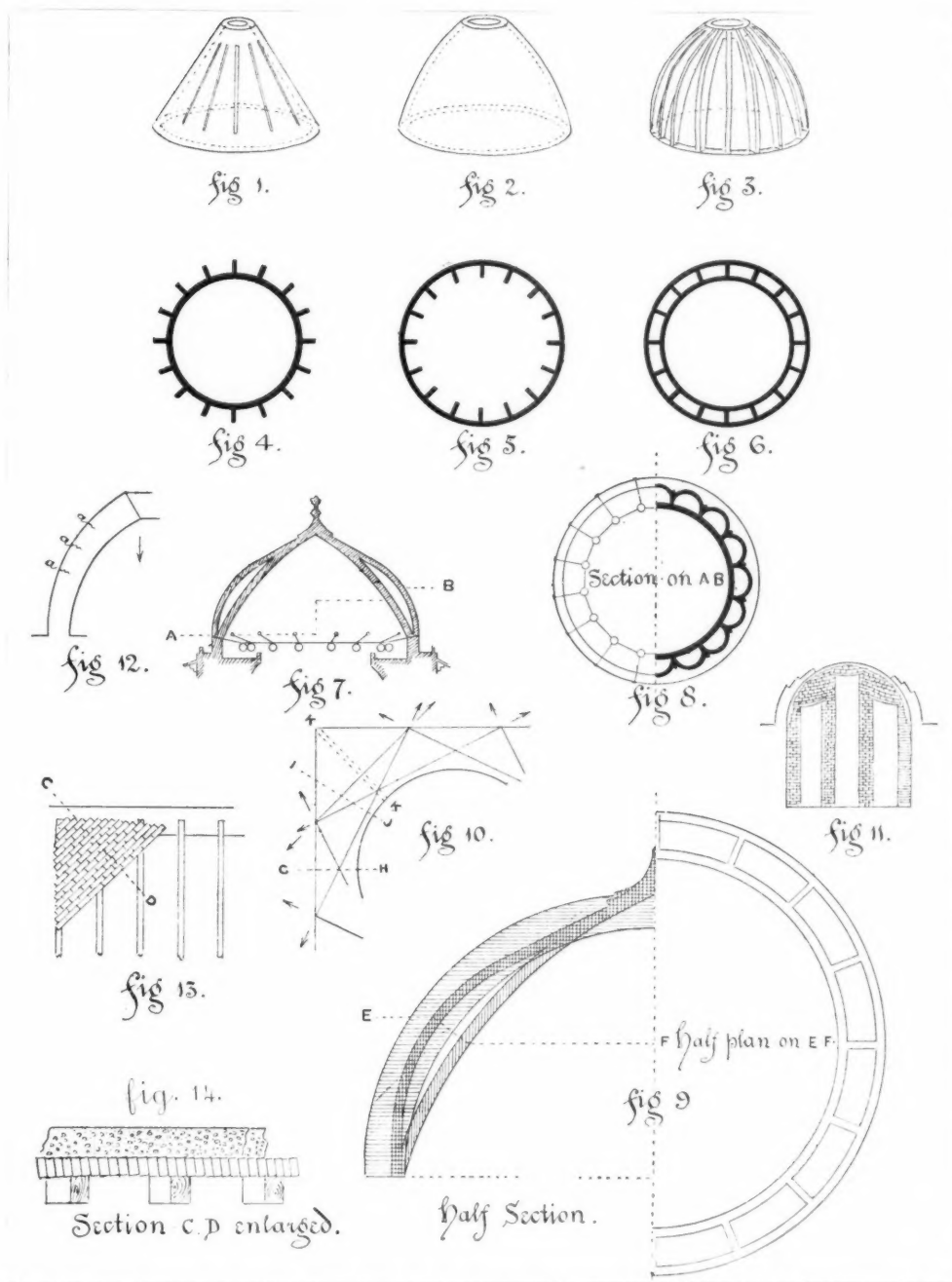
* "New College for the Gaekwar of Baroda, with Notes on Style and Domical Construction" [TRANSACTIONS 1882-83, p. 141].

Third Series. Vol. III. No. 15.—11 June 1896.

the false dome, and on the outside he constructed the true dome. In my humble opinion it is impossible to invent a truer scientific solution to the dome problem. Wren's work has been decried because he did not construct the outer dome of stone, and raised a forest of timber to support a mere line of beauty internally useless. I am unable to sympathise with such ideas. The admixture of different materials in construction can only be wrong, when either corrosion or unequal expansion and contraction become destructive elements. The outer dome of St. Paul's, properly cared for, will in reality last longer than the supporting mass of stone. Would that we could say as much for other celebrated domes! The enormous *weight* of a dome too often meets with scant consideration. It is much easier to dome on solid walls, as at Beejapore, than on connecting-arches and piers, as at St. Paul's. Has any one who thinks slightly of Wren's great work ever taken the trouble to calculate the additional pressure in tons per superficial foot a stone dome would exert on the supports? Again, the charge of wasting internal space for mere external effect might be brought with equal force against every building whose external appearance has excited the admiration of the world. I may instance two such buildings, widely separated in style and geographical position—the Taj at Agra, and our own Salisbury Cathedral.

Returning to the hollow cone, as a most ardent admirer of Wren's scientific ingenuity, I regard his invention as the true key to domical construction. If the hollow cone is divided vertically into, say, thirty-two lobes, each lobe would be supported at the apex, by leaning against its opposite neighbour. When once the cone is complete, provided rings are left at the apex and at the base to preserve continuity, alternate lobes might be removed, or the cone cut into vertical sections without affecting the stability [see fig. 1]. Now, however, each lobe, unsupported by its neighbour, would have a tendency to bend in the centre, by virtue of its own weight, like a beam, to meet which tendency the lobes may be curved to coincide roughly with the maximum line of pressure [fig. 2]. If now the lobes are turned edgewise, and loaded at the point of rupture, the material is arranged in its strongest form, and makes a series of tied raking arches leaning against each other at the apex [fig. 3]; and if these raking arches contain sufficient section to sustain the crushing-force at the apex and the base, thin domical shells may unite them either internally [fig. 4], externally [fig. 5], or both internally and externally [fig. 6].

The fact mentioned by General St. Clair Wilkins, R.E., that the great dome at Beejapore has actually split into lobes and not rings, is extremely interesting, as it shows that where the adhesive power of the material forms an important element of stability, the slight lowering of the crown by settlement, and consequent division of the dome into lobes, does not materially affect the general stability, so long as the maximum line of pressure lies within the mass at the point liable to horizontal rupture. The shoulder-to-shoulder strain, by which stability is secured during construction without a centre, becomes less and less important as the apex is reached. I found experimentally that a hollow cone 16 feet in diameter and 3 inches thick stood perfectly, supporting sixteen cross-walls and an outer dome of the same thickness. I then constructed in actual work two domes on Byzantine pendentives covering a square void of 13 feet in $4\frac{1}{2}$ -inch brickwork. After this I turned six domes of 9-inch work over voids 30 feet square with Byzantine pendentives, and, lastly, the larger dome of 15-inch brickwork covering a void 60 feet square with Indian pendentives. I may mention here that I designed a brick dome covering a void 130 feet square, but in this the tying-in at the foot presented a new problem. Up to 60 or 70 feet diameter, the tie may be formed by carefully dressed stonework breaking bond, the stones dowelled and cramped together; above these dimensions, the chance of unequal settlement splitting the stones and breaking the continuity of the tie would be extremely great. The only tie of real value would be one of metal. Unfortunately, its



DIAGRAMS ILLUSTRATING MR. CHISHOLM'S REMARKS ON DOMICAL CONSTRUCTION.

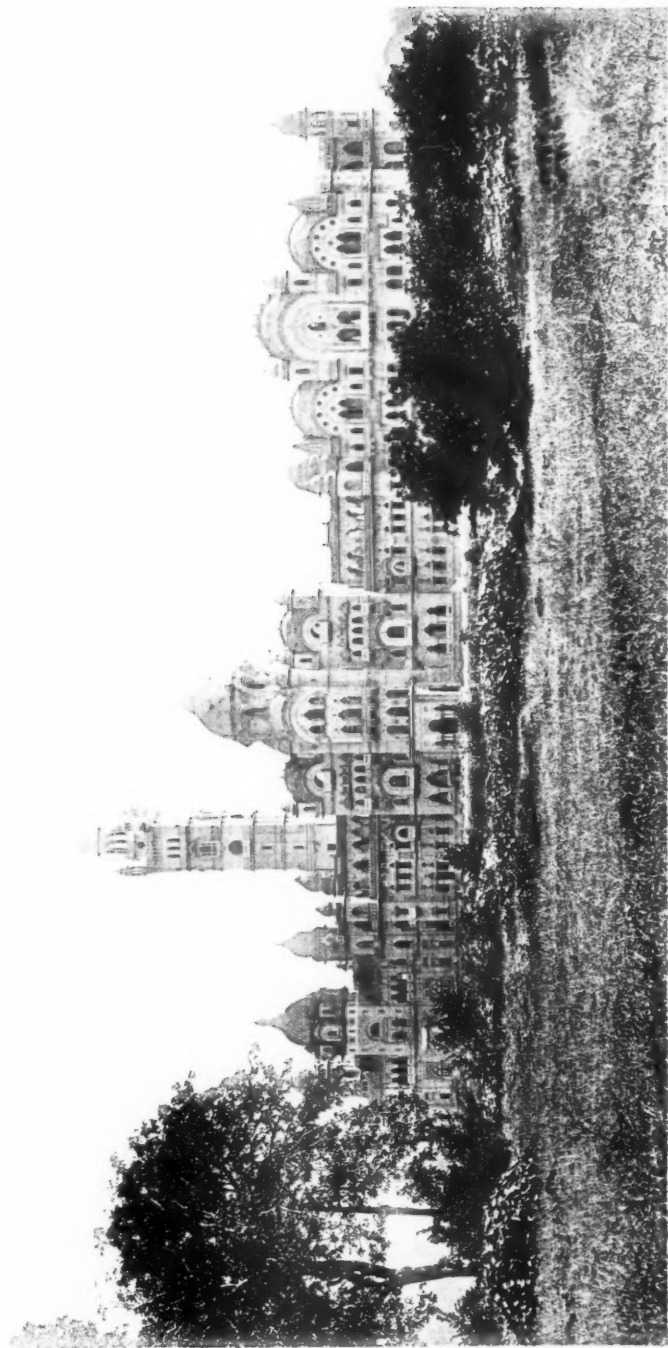
liability to expansion and contraction places it out of the question if applied rigidly. I proposed, therefore, to hold the thrust by sixteen iron ties parallel to the diameters of the circle, linked together on the inside. The points of intersection were to hold leaden weights equal to the calculated thrust of the dome. These bodies would rise and fall with temperature variations, but the horizontal strain would be practically constant [figs. 7 and 8]. The building was not carried out.

The importance of the principles I advocate will be rendered apparent if applied to such a building as the Gol Goomuz.* I regret I cannot give the exact section of this dome. It is nearly hemispherical in the interior, 10 feet thick at the base, and 9 feet at the top; but from the external appearance I should say that the point of probable rupture is considerably thicker. I have assumed as a minimum an average thickness of 11 feet. This thickness would make the cubical contents about 315,600 cubic feet, and the approximate weight 16,970 tons [see the form hatched horizontally on fig. 9, which represents the half-section of this dome]. A dome constructed according to the half-section and half-plan hatched vertically on the same figure, with the inner dome 3 feet thick and all the rest of the work 2 feet thick, would contain about 114,360 cubic feet, and weigh, approximately, only 6,126 tons.

Touching pendentives—the gathering together or corbelling of the material over the four corners of the square below the dome, to form a circular eye—I think a little too much has been claimed for the Indian system of intersecting arches. Fergusson, in his Paper on the Gol Goomuz at Beejapore, regarded the work below the dome proper as a mass of weight hung *inside* the walls to counteract the thrust—in other words, the four walls, having from the weight of the corbelling a tendency to fall in, counterbalanced the tendency of the dome to thrust them out. In the discussion which followed, it was pointed out that the arches, by virtue of their forms, must exert thrusts against the walls, in the direction of the several arrows shown in fig. 10. Neither assumption appears to be correct. A section across G H or I J [fig. 10] shows the whole mass to be corbelling merely in the *form* of arches on the face, incapable of transmitting arch thrusts unless laterally dislocated from the walls; in reality, the expedient seems to be an ordinary corbelled pendentive with sunk surfaces. On the other hand, the forces at work, being equal and opposite, do actually exert an outward thrust against the walls, not by virtue of the arched forms of the pendentives, but by the continuity of the shoulder-to-shoulder support which sustains the inner mass of material. If, in the first place, the material corbelled out is to act as a counterbalancing weight, it must not be continuous, but cut through at the corners, and left free to fall inwards [see the dotted lines, K K, on fig. 10]. Or, again, if Fergusson's theory were sound, it would follow that the more the material projected inside, the greater would be the tendency for the walls to fall inwards; hence a true dome at the position of the false dome would exert no outward thrust whatever!

With regard to the old domes being constructed without centres, I believe, not only were they so constructed, but the discovery that they could be so constructed led to the adoption of this form to cover large areas. The principles of the truss were quite unknown in the East, and to this day arches of considerable magnitude are turned on centres of brick laid in mud, brought to the correct form in the last-mentioned material [see fig. 11]. Work so constructed would be limited to the quantity which could be finished between two rainy seasons, say at the outside seven or eight months, for any exposed part of a centre such as I have described declines to stand under continued rain. I have myself saved three green arches of 30 feet span by loading the haunches with dry bricks, while the centres sank away. Now the absolute impossibility of constructing such a centre and such a dome as Beejapore in so short a period of time, is to me

* See Fergusson's *Indian and Eastern Architecture*, p. 564; also his Paper "On the Architectural Splendour of the City of Beejapore" [TRANSACTIONS 1854-55, p. 5].



C. R. Kell, Photo, S. Burnard Street, Ballarn, E.C.

LAKSHMI VILASA PALACE. BARODA. WEST FACE.



LAKSHMI VILASA PALACE, BARODA. DURBAR HALL & NORTH PORCH.

C. E. Kelly, Photo, S. P. Central Street, Bombay, E.C.

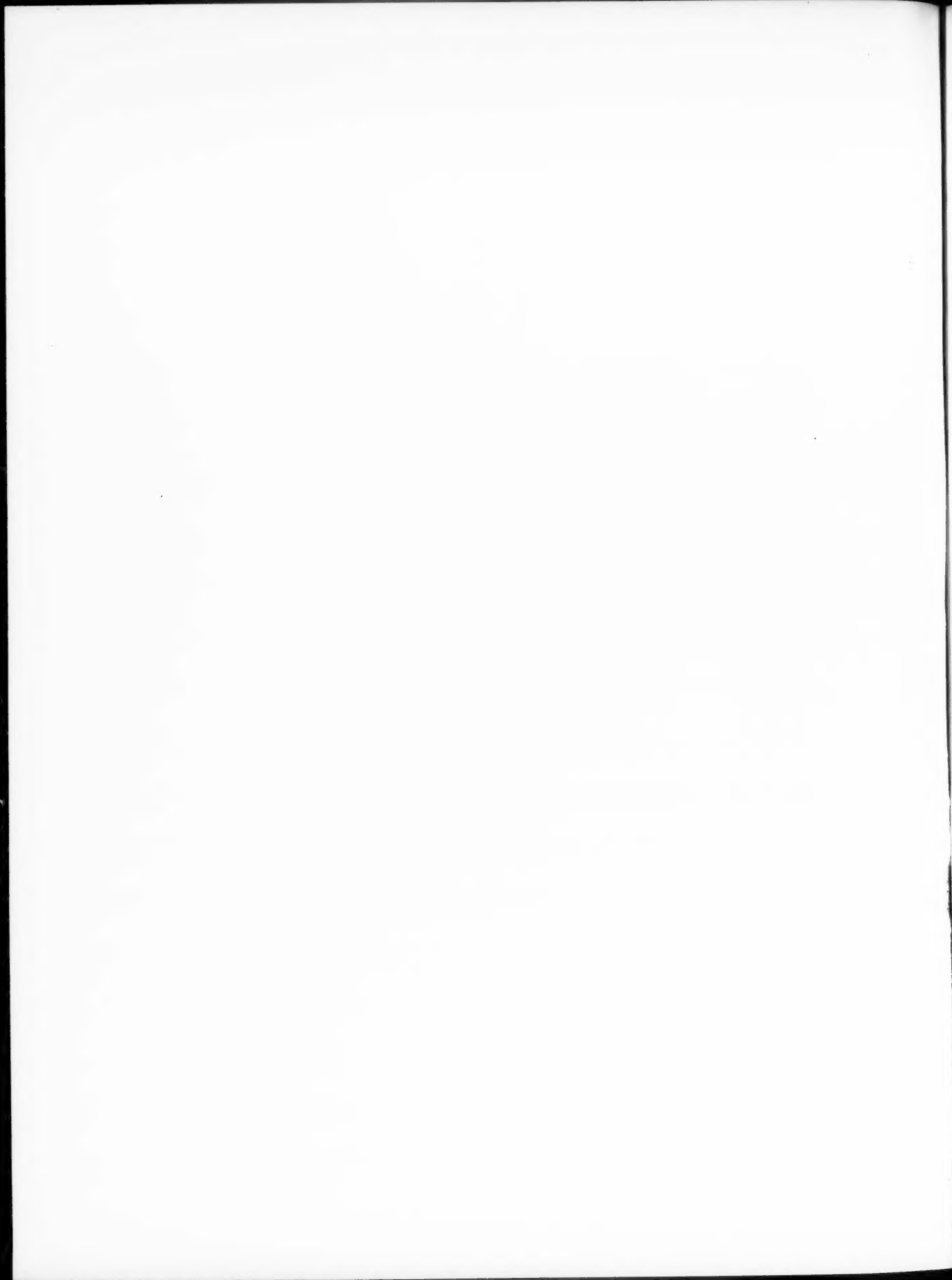


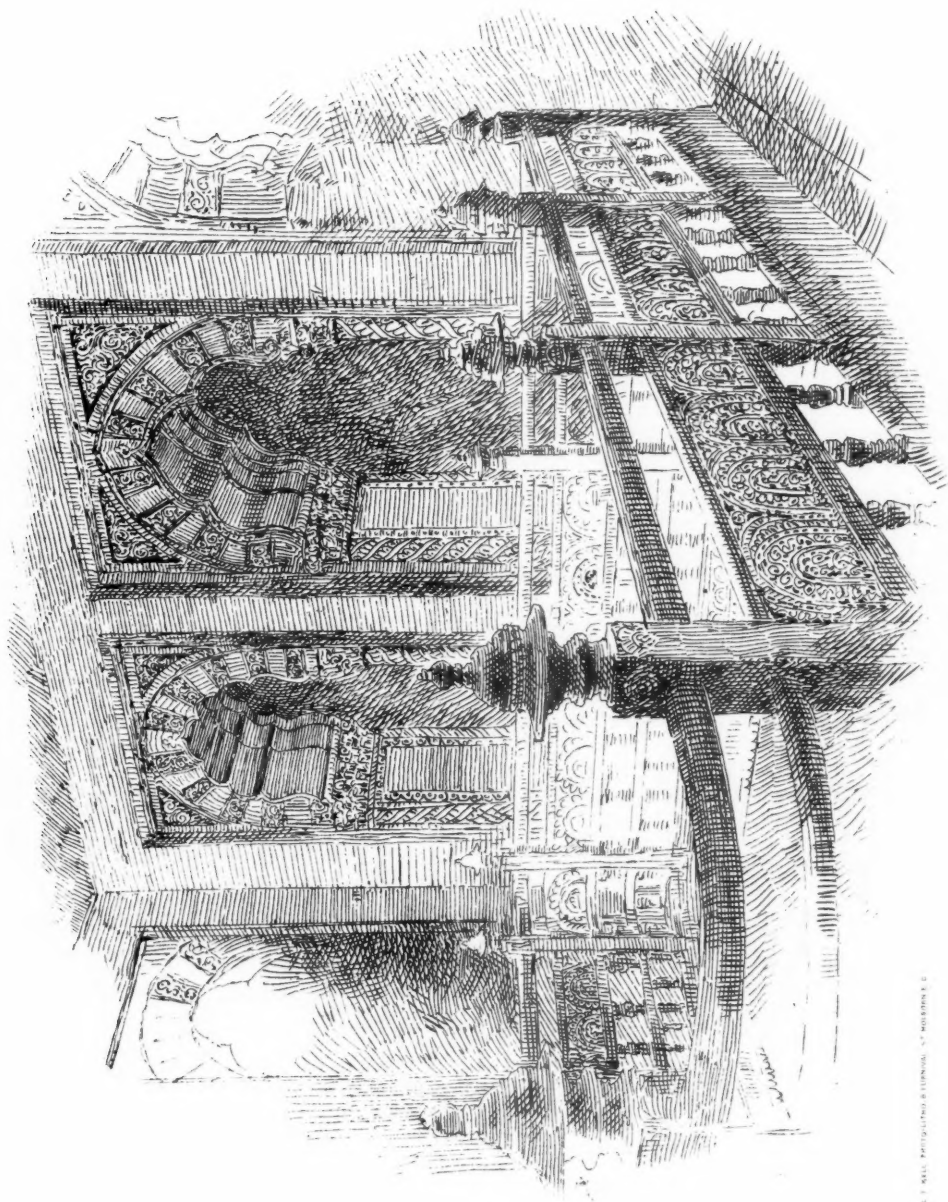


J. P. KELL. PHOTO-LITHO. & FURNISH. ST. MARYS. E.C.

LAKSHMI VILASA PALACE, BARODA.

BRONZE STATUE. MAIN STAIRCASE.



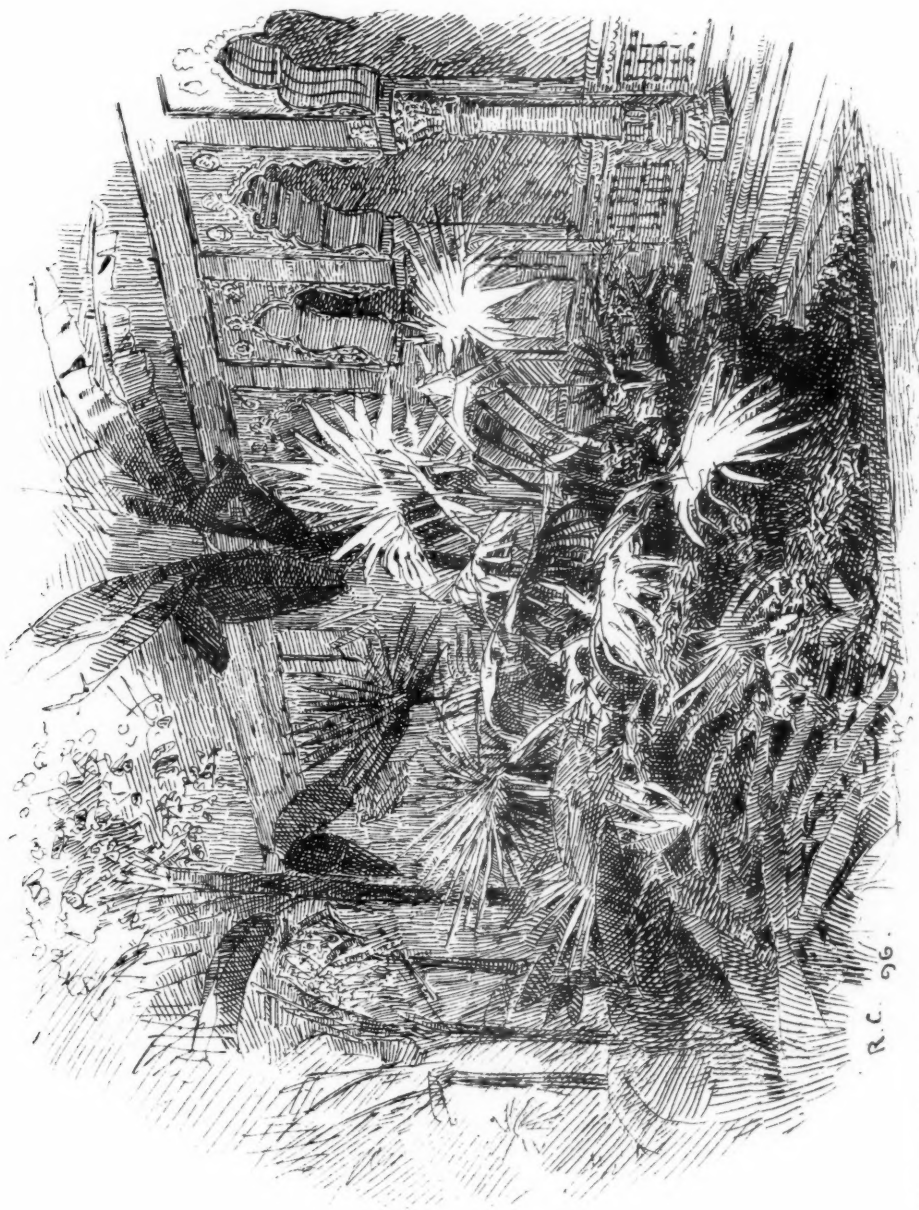


LAKSHMI VILASA PALACE. BARODA.

UPPER PART OF ENTRANCE HALL.

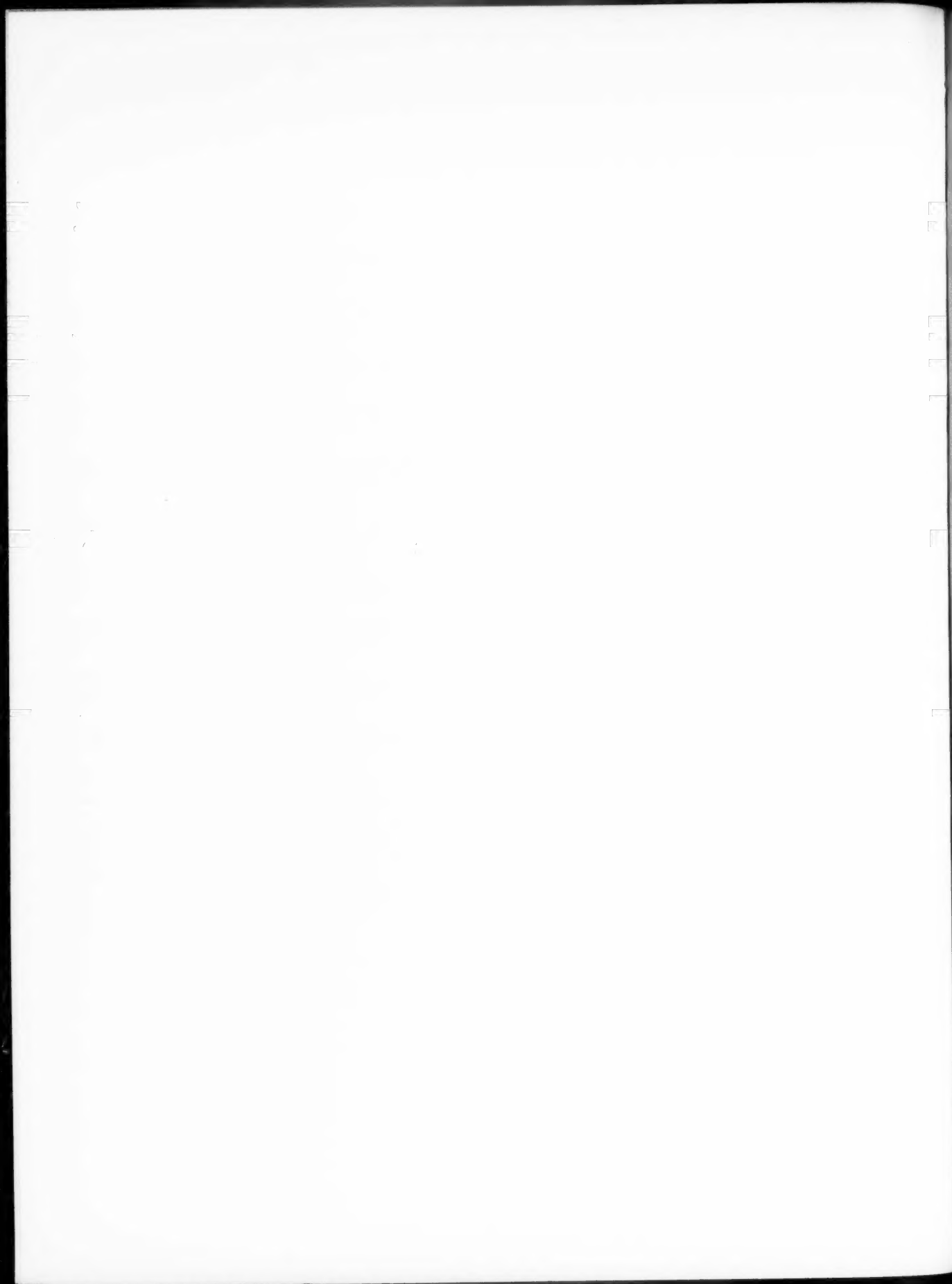
E. J. MALL, PHOTOGRAPHIC & ENGRAVING, 17, HOLBORN, E.





LAKSHMI VILASA PALACE, BARODA.

FOLIAGE IN No 2 COURTYARD.



conclusive proof that no such centering was used. General St. Clair Wilkins has suggested that the whole space to be domed was filled up solid, and afterwards excavated. This method surely intensifies the difficulty, for the liability to unequal settlement would be in direct ratio to the quantity of material employed. Nothing short of good brick laid in mortar would stand continuous heavy rain and a moisture-laden atmosphere; it must be borne in mind, moreover, that a very slight settlement would be fatal to a dome depending on the support of its centering. Doubtless, while the dome was under construction without a centre, cracks occurred on the outside, owing to the slight descent of the inner rings, caused by the giving of the lower joints [fig. 12, *a a a*]; but these would again close as the eye became smaller.

At Baroda, both in the College and at the Palace, I used a rough inner scaffold for the masons and bricklayers, very similar to that used at the Duomo in Florence.* As regards the material slipping off on the inside, it is quite easy with common mortar to make a brick adhere to a vertical wall. In the Madras form of terrace roof joists are laid from 18 inches to 2 feet centre to centre: on these, small bricks, $8 \times 3 \times 1\frac{1}{4}$ inches, are pressed one against the other, with no support but the adhesive power of the mortar. The men commence at one corner and work diagonally [fig. 13]. In the enlarged section [fig. 14] it will be seen that each brick has a slight tilt. Rain will, of course, destroy a newly made terrace of this description, but under ordinary circumstances thirty or forty hours after completion it can be safely walked on.

With regard to painting, I must sympathise with Mr. Sills's remarks. Shortly after arriving in India, I had to inspect and report on the completion of a public building of some magnitude—a first-class standard Sudder Ameens courthouse—and I remember, among other things, I wrote: "The painting has been completed, that is to say, the doors and windows appear as 'if dipped like candles in a composition of tallow.'" I have every reason to remember the remark, as I was subsequently punished for making insubordinate comments. This paint was undoubtedly smeared on with a rag, and left in smudges and blobs. I rather think Professor Aitchison would modify his opinions of Indian workmen and their productions, if he had ever visited the country. As workmen I have found the natives of India excellent, and I would as soon work with them as with the natives of any other country; but Indian artisans' productions generally bear no comparison with the industrial productions of Europe, America, or Japan. When the whole art feeling of a vast continent like India finds artistic expression in industrial works only, it is natural that these works should take the highest place among even the world's industrial masterpieces; but it must not be forgotten that these exquisite works are the production, not of ordinary manufacturers, but individual art masters—men who in Europe would be eminent painters, sculptors, engravers, architects, or decorators; and the deplorable deterioration in the quality of goods manufactured for our markets is due less to the deterioration of the master craftsman's work than to the numerical increase, and consequent admission, of inferior craftsmen, caused by the stimulation of increased demand. While on this subject I would like to again call attention to the remarkable art power of the Jains of Kattiawar. As a body, they are the most artistic people I have ever come across. Among this sect will be found at the present moment the best silk-workers, Kinkob embroiderers, woodcarvers, silver and ivory workers, and damasceeners; and they can proudly boast that their ancestors originated the "petrified poetry" of Jonagurh, Ahmedabad, Agra, and Delhi. Outside this particular sect, however, I am afraid the ordinary native of India will ride to the devil on a paint-pot, or a bottle of aniline dye, as fast as or faster than the natives of any other country.

* See pl. xli. TRANSACTIONS 1883-84, inscribed "Scaffold-ing used in the Erection of the Dome of Santa Maria del Fiori, Florence," illustrating Professor Aitchison's

remarks on a Paper by Mr. Wm. Emerson entitled "A Description of some Buildings recently erected in India," *ibid.* p. 149.

I fear it would be impossible to draw any picture of native domestic life which could guide or assist a designer. In this connection I might mention that the rooms finding the greatest favour are closed on three sides, with the fourth side opening on an uncovered terrace. Such a room with a northern aspect would be perfect. Touching verandahs, although these features form charming breaks in the monotony of an elevation, they are calculated in northern climates to make the rooms they screen, not only gloomy and uncomfortable, but in some positions damp and unwholesome. Where it is possible, however, to light the rooms shaded by a verandah in the space between the roof of the verandah and the ceiling of the rooms, verandahs may be fearlessly adopted anywhere.

THE MANCHESTER CONFERENCE: OPENING ADDRESS.

By EDWARD SALOMONS [F.].

Read at a General Meeting, Wednesday, 20th May 1896.

Mr. ALEX. GRAHAM, F.S.A., *Vice-President*, in the Chair.

MR. VICE-PRESIDENT AND GENTLEMEN,—

WHEN the Institute took the wise resolution to hold a Dinner in Manchester this year, it was thought by the executive of the Manchester Society that a few words should be said touching the mutual relations between the local affiliated Societies and the parent Body in London. This duty I have been asked to perform, and I now venture to present to you such ideas as have occurred to me on the subject. I would first begin by remarking that, while I believe there must be complete agreement amongst us as to the good which relationship between the metropolitan and provincial Societies tends to produce, there may be differences of opinion, less or greater, as to the methods by which this relationship can best be improved and developed for the general welfare of our profession. One of the most important benefits resulting from the relationship is doubtless the direct consequence of closer and more frequent personal intercourse between the non-Metropolitan Societies and the Royal Institute, whereby we provincials get our views enlarged by the experience of those at the head of the profession, and thus improve the standard of our own work, even if it be not excusable to hope that, on the other hand, the "dons" of the Institute may occasionally be able to gather some few scraps of information from their provincial brethren.

I look upon it that a great deal is to be gained by social intercourse only, and such a gathering as that at which we are now assisting is a very important one from this point of view. It tends to do away with those petty jealousies which surround all professions, more particularly our own, that being one in which personal contact does not often occur, as it does in the case of the legal profession, and, in fact, nearly all others. A busy architect, occupied all day at work either at the drawing-board or on the works, may go on for years without meeting any of his professional brethren. Such was my own case.

When I commenced practice in 1852 our local Society did not exist, and for years I only knew personally one or two architects whom I chanced to meet. There was no opportunity of that exchange of views and experiences with others which would have been to us a mutual benefit. Whatever we did had to be done with such knowledge as each individual possessed; no classes for study, no Papers read that might enlarge our ideas or instruct us; in fact, each individual architect had to work entirely on his own resources. The only means we had of knowing what was going on in the architectural world was through *The Builder*, the only architectural journal published in my early days of pupilage and practice, and I feel grateful to that journal for much that it has taught me of what was going on outside our

small provincial circle. If, then, our profession has gained so much by the founding of one local Society, so much more in proportion is to be gained by uniting all the local bodies of non-Metropolitan architects into one concrete Body under the central control of the Royal Institute—not the autocratic control of an imperial government, but the constitutional sway of a republic extending all over the United Kingdom, its Dependencies and Colonies.

With a bond thus uniting all English-speaking architects—remember, Americans call the English language American—much might be done; and one of the first things to occupy the attention of the whole Body should be the revision of the present miserable system of Competition, by which the public obtain the work of an architect for practically nothing. I may give you an illustration of this in a case (only one of hundreds of similar cases) which took place recently in Manchester, when some fifty sets of drawings were sent in, and, I am told, many good ones. The average cost of these at a very low figure must have been £10 each. The cost of the building will be about £7,000. Thus, to obtain a commission of £350, the profession spent £500, to say nothing of the cost of preparing working drawings. Surely for this great evil some remedy might be devised. To what better use could the unanimity of the profession be devoted than to that of relieving it of the monstrous incubus of competition thus carried on? The Institute has already done good work in this direction; but is it not possible to do more? I am fully alive to the great difficulties with which we have to contend, but let us remember the saying that difficulties are only things to be overcome.

Another matter to which I may draw your attention is one that I think might be fairly considered by the Council of the Institute. In many parts of the country, and I daresay in London also, there are numerous architects who are not members of the Institute, and who are desirous of becoming so, but do not like the idea of having to be voted for by junior members of the profession, some of whom might have been educated, or may have been draughtsmen, in their own offices. Might not power be given the Council in exceptional cases to elect members without requiring them to go through the ordeal of the ballot? Such a system of election prevails in many clubs and other institutions in London, and I cannot but think that if this idea could be carried out in some form an increase of members would result.*

We all know that throughout the country there is too little appreciation of architecture generally. Very few people seem to understand what the duties and requirements of an architect are. He appears to be looked upon by the vast majority here in Manchester, and doubtless also more or less all over the kingdom, as a superior builder; and it would seem to be thought that one architect is as good as another, irrespective of any ability or extra experience such architect may have had. I would like to draw your attention to the room in which we are now sitting, surrounded by some beautiful architectural drawings. This collection was brought together (somewhat too hastily to get a proper representative exhibition) for the purpose of trying to educate the public to the fact that there is something beyond the mere necessary knowledge of building required from an architect. Even the merit of the drawings alone, irrespective of the buildings they represent, is a matter which I should much like to see the general public appreciate more than they do. It may interest you to know that up to now about twenty thousand persons have visited this Exhibition. Now I do not profess to say that I can offer any suggestions for the carrying out of this idea; but if once mooted amongst the members of the profession, we shall doubtless have many hints and suggestions that will bear fruit in the future.

How would it be if both the parent Body and the affiliated Societies were to combine, and appoint, say, one or two lecturers to disseminate among the public the principles of our

* See Mr. Penrose's Address at the Opening Meeting of the current Session: "The Class of Fellows: an Appeal" and a Suggestion" [pp. 12-14].

art, and show the advantages which would accrue to them by giving it greater encouragement? Do let us do something which will, in some way, move the public to take more interest in our work. Let us try to teach them that they themselves will profit by encouraging art as applied to building, as well as the other branches of art. As an instance of the want of clear conviction on this point, I will mention the case of the Whitworth Institute. With the noble bequest left by the late Sir Joseph Whitworth, a large plot of land was acquired, on which has been erected an exhibition building. Here has been formed a magnificent collection of drawings and paintings, which will doubtless develop into an important exhibition of artistic work; but it is surrounded in Whitworth Park with objects that are anything but artistic. Whether it be in the form of laying out the grounds, or the railings enclosing them, or the shelter and band-stand within them, an utter want of artistic form, or thought, or feeling, is conspicuous therein. The cost might have been a little more, but surely when such a large sum of money is being spent upon pictures, the general surroundings of the building which is to hold them should, above all things, be artistic. The teaching to be deduced from the practice followed in this instance would seem to be that the rooms of a workman's dwelling may be made beautiful merely by having beautiful works of art in them. We know well that this is not so; that the room itself, by little or no more expenditure, can be made beautiful; and this, I think, is of more importance than hanging a beautiful work of art amid ugly and inartistic surroundings.

I will not detain you longer with any more of my erratic thoughts. In the few words I have said I can only hope to have scattered some seed that may possibly bear fruit hereafter. At the present moment the remaining time at our disposal may perhaps be more profitably employed in hearing other opinions and views on the subject. I feel sure that in appreciation of the objects we have in view I shall have your full concurrence, and that I address some who will give us hints at once more numerous and more practicable than those which I have ventured to offer.

DISCUSSION OF THE FOREGOING PAPER.

MR. THOMAS DREW [F], R.H.A., President of the Royal Institute of the Architects of Ireland (Dublin), who opened the discussion at the invitation of the Chairman, said that he should confine himself to only one point upon which Mr. Salomons had touched—namely, the question of admission to membership of the Institute. Looking at the matter from a provincial point of view, he considered the real test in bringing the provincial architect into touch with the central Body should be selection or nomination by the local Society. It was not expedient to lay down a hard-and-fast line as to the ultimate ordeal that a candidate should pass, but if his nomination and examination were confined in the first instance to the district in which he lived, that would be the better tribunal to estimate his abilities and merits with a view to recommending him for admission to the Institute.

MR. A. CULSHAW [F] rose at the invitation of the Chairman, but explained that his Presidency of the Liverpool Society had just expired. He, however, had brought with him to the meeting his successor, Mr. Bradbury, who, unfortunately, was not a member of the Institute. That suggested

at once a point of great importance, as their Society was consequently deprived of representation upon the Council of the Institute for the next twelve months. They would say that it was their President's own fault that he was not a member. That might be so; but, after all, the question resolved itself into the benefits derivable from such a membership to those who already belonged to local Societies. He himself, he hoped a very loyal member of the Institute, had experienced considerable difficulty in convincing provincial architects that they should join the Institute also. The question about a revision of the mode of electing Fellows would shortly come on for discussion at the Institute, with, he trusted, the most beneficial results, for he believed the whole subject was of far greater importance to architects in the provinces than those in London realised.

MR. W. GOLDTHORPE, Chairman of the Salford Hundred Quarter Sessions, thought it a good thing that architects should meet together and discuss their grievances and difficulties. These must constantly arise in every profession, and their ventilation would be for the benefit of the whole body of members. They had at the Bar

what was commonly called a trade union, and a very close trade union it was said to be. A few years ago they had established a Committee of the Bar in London, and the discussions on various professional matters brought before that Committee had resulted in very great advantage to members of the Bar. Apart from other questions affecting the architectural profession, that of competitions required to be well thrashed out. It seemed to him that in this matter architects had been working upon a wrong principle for many years. That a number of gentlemen of high standing in their profession should be expected to prepare a large number of drawings for one particular subject, and then have their labour thrown to the winds, had always seemed to him to be radically wrong in principle. Mr. Salomons, he believed, had suggested no solution of the difficulty, but something might be done by discussing the matter.

Mr. JOHN HOLDEN [F.], President of the Manchester Society, said that it seemed to him that architects must follow all other professions or businesses in one thing. There must be co-operation, or trade unionism, as Mr. Goldthorpe had called it. They must be banded together for their own protection, and for the protection of the public; such union was for the advantage of both parties. The Institute naturally took the first place among architects, not only because of the large number of the London district architects belonging to it, but also from its age, having been established some sixty-two years. It ought therefore to attract and to attach to itself provincial Societies throughout the country. That it had done to a certain extent, and it seemed to him to be the duty of the provincial Societies to further that end, not only for the protection of their own members, but also for the protection of the public. People asked what benefit they would derive by becoming Fellows of the Institute. There was a great deal to be said on that point, and it was a difficult question to answer, because they might to a certain extent obtain through their local Societies many of the advantages offered by the Institute. But that was too narrow a view to take of the case. There was something beyond pounds, shillings, and pence to consider, and he certainly thought that one of the principal duties of a local Society was to act as a feeder to the Institute. It should be the endeavour of all architects to join the parent Body, and if they could only induce every architect in the country to join the Institute, there would be a solution of the difficulty. But that was out of the question. Many would not join; others were not eligible. But still those doing good work for the public ought not to be left in the background and without control. Even the ineligible should not be lost sight of; they must be prevented from doing mischief. One of the things every provincial

Society should do was to make it impossible for their Society to drop out of representation on the Council of the Institute because their President was not a Fellow of the Institute. That very matter had been considered when the alliance clauses were under discussion, and the Manchester Society had guarded against such a possibility by making a rule that every president, vice-president, or honorary secretary must be a member of the Institute. That, he thought, was the basis of the connection between the provincial Societies and the Institute. If a Society elected as President a gentleman who was not a Fellow of the Institute—he might be a very good man; there were no doubt a great many good men outside the Institute—they must take the consequences of not being represented. It was a very great pity the President of the Liverpool Society was not a member of the Institute, and the sooner he took up his Fellowship the better. As to the elections he quite agreed with Mr. Salomons. There were a great many gentlemen outside the Institute who ought to belong to it, but very many did not care to face an election by ballot in which both Fellows and Associates voted. He could quite understand that a gentleman who had been in practice for twenty or thirty years would say, "I would sooner remain as I am than place myself in the position of being voted upon by gentlemen who have passed through my office, and some of whom may be in my office now." He did not think that mode of election at all necessary. The Council of the Institute were the proper persons to judge of the fitness of candidates. If a gentleman who had been in honourable practice for from fifteen to twenty years could bring forward credentials and proofs of his ability, nothing more was needed. The Council of the Institute were quite competent to judge whether he should be elected a Fellow of the Institute or not; and such powers ought to be given to the Council at once. The elections might be limited to a certain number each year. If the Council had that power he believed that a great many who ought to be members would join. He was glad that the Institute had convened this meeting, and the idea of holding the Annual Dinner occasionally in the provinces was an admirable one. Many provincial members seldom went to London, but they were always wishful to meet their Metropolitan brethren. In social meetings such as this, lifelong acquaintanceships were often formed, and both the Institute and the provincial Societies would benefit by the new movement.

Mr. JOHN SLATER [F.], B.A. Lond., said that if any one had doubted the wisdom of holding a Meeting of the Institute in a city like Manchester, the present discussion would convince him that it was a very wise move indeed. It was certain that London architects could only obtain good from hearing the views of their provincial brethren on

points which were of interest to them, and which they in London were not perhaps so well able to grasp. The question of the election of Fellows was a point which had much exercised the minds of the Council. When the new Charter was framed they were exceedingly anxious to give the Associates a voice in the management of the Institute, which they had not before possessed; and he was afraid that they had gone a little too far. There had been undoubtedly during the past year or two a sort of cabal—he did not use the word in any invidious sense—raised among the Associates, most of them London men who had passed the Examinations, and who did not like the idea of Fellows being admitted without going through the mill which they themselves had gone through. A little reflection, however, ought to convince them that there was all the difference in the world between electing as a Fellow a man who had perhaps only just qualified for Fellowship, and electing men who had been engaged in honourable practice long before the Examinations were even thought of. He, for one, felt very strongly on the subject, and if there were a possibility of a repetition of what had occurred a year or two ago, when some very admirable and eligible candidates were blackballed, for no fault of their own, by people who, he believed, knew nothing whatever about them, then the Council, he considered, ought to take steps to alter the by-laws and limit the election of Fellows to the Fellows themselves. It was a scandal that well-known and respected gentlemen should have been blackballed through the action of a few. Members who knew nothing whatever about the merits of a candidate would not vote for him because they did not know him; so if a poll were demanded it was easier to keep a man out than to get him in. As to the advantages to be gained by provincial architects in becoming members of the Institute, it was difficult to say how the central Body in London could give greater advantages to provincial members. If the Institute had more funds at its disposal—as it would have if the membership, especially of Fellows, increased—country members might have the advantage of borrowing books from the Library. The Institute had one of the finest collections of architectural books in the world, and the more the loan collection could be increased, the more opportunities would there be of lending books to country members. Expensive books could thus be consulted by members living at a distance from London without any cost to them. Then provincial members received the Institute JOURNAL, and he did not think there could be two opinions as to the immense value of the JOURNAL, which contained, not only the Institute Papers, illustrations, and discussions, but many of the Papers read before the Allied Societies and other matters of interest. Then it must not be lost sight of that the subscriptions to Allied Societies of pro-

vincial members of the Institute were paid by the Institute. The Council, however, would be only too glad to receive suggestions as to the way the advantages of country membership might be increased, and, if they were at all practicable, to act upon them.

MR. EDWIN T. HALL [F.] observed that the idea of holding a Meeting and the Annual Dinner in the provinces was a great and useful departure, and was in furtherance of a policy which was foreshadowed when the new Charter was devised. Such Meetings assisted in the circulation of ideas, and the Meeting that day had been a very valuable one. Mr. Salomons had spoken of the great waste of time and labour entailed by competitions. But could any other course be suggested? That was the crux of the whole question. Were they to select a few leading architects, men who had made their mark, to design all the big buildings in the country? If so, what became of the young men—what had they to say on the subject? On the other hand, was it to be laid down that when once a man had designed a large building he should not design another, and that the younger men should have the chance? He was afraid the senior men would object to that. Competition was as old as the world, and in his opinion competitions must go on more or less as they do at present. Many leading architects of the day had made their reputations through competitions. When a young man by industry and hard work had succeeded in winning a competition, he took a step forward. This, in an artistic profession, was the only way a man could succeed, unless he happened to commence practice with a large connection ready cut-and-dried for him. They all deplored the difficulty, but the fact must be faced that it was almost impossible to suggest another way of getting the desired result. With reference to the election of Fellows, that matter had been engaging the attention of the Council for a considerable time. It was much to be regretted that the President of the Liverpool Society was not a member of the Institute; but with regard to Mr. Culshaw's question, what advantage was it to a man to belong to the Institute, ought it not to be put on the higher ground, How did he further architecture and the practice of the art by joining the Institute? It was to be hoped they had something better to serve than their own personal interests; the well-being of their art, and the interests of the Body at large, should be their first concern. One advantage of joining the Institute was this: if a member of an Allied Society were a member of the Institute, and were elected to be the President of his Society, he would have a powerful voice—for the representative voice of an Allied Society was always listened to with the greatest respect in the Council of the Institute—in directing the policy which guided the Institute, and therefore guided the profession

of architecture, not only throughout Great Britain and Ireland, but throughout the Colonies. Architects should influence the public; and if they wanted the public to take more interest in architecture, some stimulus must be applied. It would have a great effect upon the public if the whole body of architects in the kingdom were united with one object, namely, the advancement of architecture. The public would be much more influenced by such a union than by a number of little Societies, which, for all they knew, might be merely social clubs. The fact of a man belonging to an honourable Body like the Institute was a guarantee to the public that they were in safe hands. It was a guarantee that the architect had a certain degree of competency in his profession; and it would be of advantage to every man who practised architecture if the public knew that he was a member of the Institute. With regard to the mode of election he thoroughly agreed with Mr. Slater. It was a most regrettable circumstance that it should be in the power of junior members to exclude from the Institute men, very much their seniors, who had done good work all over the country. When the power of voting was given to the Associates, it was hoped that they would display a proper public spirit and sense of responsibility in its exercise; that they would use their power not in any way that would tend to limit the number of members, and therefore restrain the influence of the Institute throughout the country. That hope had not been realised, and the result, he thought, would be that the power of voting for Fellows might have to be withdrawn from the Associates unless some change occurred. In many Societies the election of the senior class of members was by the Council alone, and it had been advocated that that should be the case in the Institute. If not, it certainly should be by the Fellows alone, after the applicant had been admitted to candidature by the Council. He could not forecast the result of the deliberations of the Committee now sitting on this very difficult question, but he should not be surprised if it took somewhat that line. If so, he hoped that every gentleman of standing present, if he were not already a member, would make up his mind to at once join the Institute, and would encourage and persuade every practising architect in the country to come forward in the same way. When the Institute was strong in numbers, and all its members were tried and good men, its influence would be greatly strengthened; the country would realise that there was more in architecture than it had been aware of, and the result would be a truer, more intelligent, and more widely diffused appreciation of their art.

MR. G. BRADBURY, President of the Liverpool Society, said he had come to the Meeting with the hope of receiving information as to the objects and aims of the Institute, and he had

gained considerable knowledge, especially from Mr. Hall. He should consider very seriously the question whether he ought to run the gauntlet of the ballot. He had been in practice for twenty-two years, and had been a member of the Liverpool Society for twenty-five years, and the reason he had never applied for admission to the Institute was simply that he did not care to run the risk of being blackballed. He held strong views perhaps on the subject, but he felt that gentlemen who were honoured by being elected Fellows of their own Societies, and who had done good work in those Societies, should be eligible for election as Fellows of the Institute on the recommendation of the Council of the local Societies. Then another point. He had been elected to the office of Diocesan Surveyor. He was the first elected by public advertisement as required by Act of Parliament. He felt that to be a great honour, because all the leading architects of Liverpool were candidates for that office, and he was so fortunate as to be elected by a large majority. He should have felt at such a time that, if his work had entitled him, it would have been an exceedingly graceful act if the Royal Institute, through the Liverpool Society, had invited him to become a Fellow. Perhaps he was a trifle too thin-skinned, but he had always felt that to run the risk of not being elected might very seriously damage the reputation he had gained among his brother architects in Liverpool. That was the sole reason he had never applied for admission. Supposing he were to apply, and supposing some of the Associates who had the voting power, said, "We do not know this man; we never heard of him; let us blackball him." For the President of an influential Society to be blackballed in that manner was a position too serious to be contemplated. With regard to competitions, some one had referred to the Institute as a Body to a certain extent holding views similar to societies formed among the artisan classes—namely, trade unions. That was an admirable line to take, and the Institute should combine as much as possible. Supposing half the architects in the kingdom were members of the Institute, and they resolved not to take part in any competition except among themselves, no corporate Body, in his opinion, would then venture to throw open a competition to the whole of the country by public advertisement in the face of such a resolution by the great representative Body. The result would be that probably fifty per cent. of the remaining architects would be compelled to become members of the Institute.

MR. ALFRED WATERHOUSE [F.], R.A., LL.D. [*President 1888-91, Royal Gold Medallist 1878*], said they were much indebted to Mr. Bradbury for his excellent practical suggestion with regard to competitions. He believed that members of the Institute might very safely agree not to take

part in competitions except among themselves. That was what he understood Mr. Bradbury to suggest, and he thought it an exceedingly graceful suggestion from an outsider, though he hoped Mr. Bradbury would not remain long outside the Institute. His reluctance to seeking admission to the Institute under existing conditions of election was very natural; and the Institute, he thought, must make a radical change in the mode of election of Fellows. His individual opinion was that the election of candidates for Fellowship should be left entirely in the hands of the Council, who should have power to elect a certain number annually. The Council should take the onus of that selection; should make all the necessary inquiries, which should be of the most searching character; and it should be no discredit to any gentleman if by reason of the number of applicants his election was postponed to another year. That, he thought, would dispose of the very legitimate objection raised by Mr. Bradbury with regard to the older members of the profession who hesitated to seek election under the existing arrangements. He should like to say a word in defence of the new Associates. Justice had hardly been done them. The fact that they had passed an examination which their seniors had not passed very naturally gave rise to a feeling that more than ordinary stringency was required in advancing men from the outside world into the class of Fellows; and he was therefore not surprised that some candidates had been blackballed. He agreed that the procedure was very improper which resulted in the rejection of very deserving men; but allowance must be made for the feeling of the younger Associates. He thought it would be a little hard to take from the Associates the privilege which was granted only a few years ago because a few out of a very large number abused that privilege. He should like to add one word as to the reasons which should induce architects to become members of the Institute. It was not merely a question of whether they were to derive individually certain advantages by becoming members of the Institute; but whether by joining the Institute they could advance their art, and the profession to which it was an honour to belong.

MR. EDWIN T. HALL [F.] remarked that, owing probably to the fact that candidates for election were not personally known to members, only a small number of voting-papers were returned. He suggested that members should make it a rule that if they did not know a candidate they should vote in his favour if the candidate were recommended by the Council.

MR. THOMAS DREW [F.], R.H.A., wished to add a word on a matter that affected provincial members, and would cite his own case as an instance in point. As President of the Institute of Ireland he had a seat on the Council of the Institute in London, and it cost him £10 and

three days to exercise the privilege of attending. That, he thought, somewhat discounted an otherwise great honour.

THE CHAIRMAN said that, as the representative of the President and Council of the Institute, he could assure the Meeting that the various matters referred to and suggestions made during the discussion would receive full consideration at the hands of the Council. The question of competitions had been before the Institute for a great number of years. The more important question of the ballot was also now being considered. With regard to the greater benefits that should be derived by provincial members, through alliance with the Institute, he would refer to their magnificent Library, but he was sorry to say it was not used as much as it ought to be. For some time past they had been considering how to make the Library more useful, either by circulating books or in some other form, in order that members of Allied Societies might derive almost the same benefit from it as if they were living in London.

MR. R. KNILL FREEMAN [F.] said that the Council would confer a great boon on provincial students if the privileges of the Library could be in some way extended to them. A Manchester student, preparing for the Institute Examinations, had recently complained to him that he was very much handicapped in the particular subject he was studying, and placed at a disadvantage as compared with London students, because certain books he wanted to consult were not to be found in the Manchester Library. If they could devise a means of facilitating the access of provincial students to the Institute Library, it would be a great point gained in the way of increasing the value of membership of the Institute for provincial members.

MR. CHARLES FOWLER [F.] asked to be allowed, as a London architect, to congratulate Manchester architects on the great success which had attended their recent works. He had had that day an opportunity of renewing his acquaintance with the city, which had been interrupted for six or eight years, and he found that its architecture was extremely creditable. Some of the buildings erected within the last ten years were certainly very striking, and he should be glad to see more such buildings carried out in London.

MR. E. SALOMONS [F.], in reply to the vote of thanks, referring to Mr. Hall's remarks, said he was mistaken in thinking that he (Mr. Salomons) objected to competitions. He simply pointed out the evils of the system, and the necessity of devising a means of getting rid of them. The idea suggested by Mr. Bradbury was a point on which discussion might be raised, and perhaps some practical issue arrived at. He thanked Mr. Fowler for the very kind way in which the work of the Manchester architects had been recognised. Coming from

such an old, experienced member of the profession, they felt it a very great compliment.

THE DINNER.

The attendance in Manchester of members of the Institute on the occasion of the recent Conference and Dinner, considering the distances to be travelled, was satisfactory, and the interest manifested in the whole proceedings may be taken as a happy augury for future annual gatherings at non-Metropolitan centres. The idea of holding the function occasionally in their own districts is regarded with especial favour by provincial members, as affording them an opportunity of becoming acquainted with their professional brethren throughout the kingdom.

The Dinner at the Queen's Hotel passed off most successfully, and there was more than one lament from the Manchester men that the claims of London members and of the other Allied Societies precluded the possibility of the Institute again assembling for its annual reunion in their city until after the lapse of a considerable interval. Mr. Penrose presided, and was supported on his right by the Vice-Chancellor of the Palatine Chancery Court, the Town Clerk of Manchester, the Principal of Owens College, Mr. Alfred Waterhouse, R.A., and Sir E. Leader Williams; while on his left were the Mayor of Salford, Judge Parry, the Dean of Manchester, Professor Simpson, and Mr. Alex. Graham, F.S.A. The Presidents of the Royal Institute of Ireland and of the Manchester and Liverpool Societies presided respectively at the lower end of each table. With the exception of a few personal friends of members, the following is a list of those present, including the official guests of the Institute:—

Mr. P. E. Barker [A.]; Mr. R. I. Bennett [F.]; Professor Bodington; Mr. G. Bradbury, President of the Liverpool Society; Mr. J. J. Bradshaw [F.]; Mr. John Brooke [A.]; Mr. G. Brown; Mr. J. H. Burton; Mr. J. K. Bythell, Chairman of the Ship Canal Company; Mr. Charles Caine; Mr. A. W. S. Cross [F.], B.A.Cantab.; Mr. A. Culshaw [F.], ex-President of the Liverpool Society; Mr. Alfred Darbyshire [F.], F.S.A.; Mr. A. H. Davies-Colley [A.]; Mr. Thomas Drew [F.], R.H.A., President of the Royal Institute of the Architects of Ireland; Mr. John Eaton [F.]; Mr. John Ely [F.]; Mr. Wm. Emerson [F.], *Hon. Secretary*; Mr. R. Knill Freeman [F.]; Mr. Charles Fowler [F.]; Mr. Edward M. Gibbs [F.], ex-President of the Sheffield Society; Mr. W. Goldthorpe, Chairman of the Salford Hundred Quarter Sessions; Mr. Alex. Graham [F.], F.S.A., *Vice-President*; Mr. Edwin T. Hall [F.]; Mr. Samuel Hall, Q.C., Vice-Chancellor of the Palatine Chancery Court; Mr. Charles H. Heathcote [F.]; Mr. Edward Hewitt [F.]; Mr. John Holden [F.], President of the Manchester Society; Mr. J. F. Holden; Mr. O. Holden; Mr. Jesse Horsfall [F.]; Mr. Edmund Kirby [F.]; Mr. W. Leake, Mr. C. R. Locke; The Very Rev. Dr. Maclure, Dean of Manchester; Mr. T. De Courcy Meade, City Surveyor, Manchester; Mr. F. W. Mee; Mr. A. H. Mills [A.]; Mr. Alderman Mottram, Mayor of Salford; Mr. J. D. Mould [A.]; Mr. T. Muirhead [A.]; Mr. A. J. Murgatroyd; Mr. Albert E. Murray [F.], A.R.H.A.; Mr. Dr. J. Niven, Medical Officer of Health, Manchester; Mr.

Paul Ogden [F.], *Hon. Secretary* of the Manchester Society; Mr. Wm. Owen [A.]; His Honour Judge Parry; Mr. W. Kaye Parry (Dublin); Mr. F. C. Penrose, F.R.S., *President*; Mr. J. E. Phythian, Chairman of the Art Gallery Committee of the Manchester Corporation; Mr. Edward Potts [F.]; Mr. T. M. Rickman [A.]; Mr. Marshall Robinson [A.]; Mr. W. A. Royle [F.]; Mr. Edward Salomons [F.]; Mr. W. R. Sharpe; Professor Simpson, Roscoe Professor of Art, Director of the City of Liverpool School of Architecture and Applied Arts; Mr. John Slater [F.], B.A.Lond.; Mr. P. Gordon Smith [F.]; Mr. W. H. Talbot, Town Clerk of Manchester; Dr. A. W. Ward, Principal of Owens College; Mr. Alfred Waterhouse [F.], R.A., *Past-President*; Mr. Aston Webb [F.], F.S.A., *Vice-President*; Dr. A. S. Wilkins; Sir E. Leader Williams, Engineer of the Manchester Ship Canal; Mr. Percy S. Worthington [A.], M.A.Oxon.; Mr. J. H. Woodhouse [F.]; Mr. F. Zimmern; with representatives of *The Builder*, *The Manchester City News*, *The Manchester Courier*, and *The Manchester Guardian*.

The Lord Mayor of Manchester, who had accepted an invitation to be present, was prevented, through a serious illness, from attending. Among those to whom invitations had been issued were the Bishop of Manchester, who was unable to accept, having to attend a meeting of Bishops in London, fixed for the same day; the Right Hon. A. J. Balfour, M.P. for East Manchester, who wrote greatly regretting that, as the House of Commons was sitting on that day, it would be impossible for him to leave London; and the Principal of Victoria University, Liverpool, already pledged to preside at a special lecture on that evening.

The usual loyal toasts proposed by the President were enthusiastically acclaimed, and abstracts of the succeeding speeches here follow:—

Mr. R. KNILL FREEMAN [F.], in proposing the toast of "The Church and its Influence on Architecture," said that from the earliest times the Church had exerted a distinct and very active influence on Architecture. All the best work of Egypt, India, or other countries under the sway of the old religions, was dedicated to the Great Unseen—the Great Architect of the Universe. That feeling had been carried to perfection in the Christian religion, and in the buildings that religion had evoked. In the churches of Germany, in those of Italy and of our own country, in the most elaborate and gorgeous cathedrals or in the simplest and most homely village churches, one found the same feeling. Gothic architecture had been in all of them an embodied crystallised religion. One great reason why the ecclesiastical buildings of the past had been so successful in embodying and incarnating the Christian religion was that their erection was part of the religion of those who built them; and the more nearly we could approach that feeling at the present day, and do away with the hard-and-fast principle of letting to the lowest tender, the better it would be both for architects and Architecture. While considering the influence of the Church on Archi-

ture, its converse must not be lost sight of, namely, the influence Architecture had exercised on the Church. Architecture and all the beautiful arts were the handmaidens of Religion, and helped the Church very substantially in its work. The mind was elevated and the higher feelings appealed to by Architecture and Sculpture in a way the most careful sermon very often failed to effect, and the architect who recognised this aspect of his art was the man who realised its best developments.

THE VERY REV. DR. MACLURE, Dean of Manchester, responded to the toast, observing that those responsible were most anxious that the very best architects should direct any enterprise taken in hand by Mother Church. The architects of the past were imbued with a very religious spirit—a spirit of deep attachment and obligation to their art. Present-day architects, however, could hardly fail to be somewhat affected by the circumstances of this utilitarian age, when the lowest tender had the greatest attraction for the many. For himself, he had no love for the lowest tender, or for the poorest style of architecture. He felt a great responsibility in touching any venerable edifice which had been handed down to them from past ages; but there might arise circumstances when a new departure must be taken. He hoped the influence of the Church upon Architecture would continue. Unhappily there were prejudices abroad which, under the specious name of theological opinion, seemed to run counter to the best principles of Art. There were persons who objected to anything of the character of statuary in their churches, under the idea that it would lead people into wrong theological paths. A friend of his, a man of great culture, belonging to the Jewish persuasion, had remarked to him a while ago that he thought his people had blundered sadly over the Second Commandment, and that if they had only understood that Commandment aright, the sanctuaries of the Jewish Church would not have been so utterly devoid at the present moment of any specimens of the symbols of art. There was no fear of people at the present day falling down and worshipping graven images. He contended that everything that was beautiful in nature, whether it be in the shape of a man or in the shape of a flower, whatever God had created, should find its place in the domain of architecture, whether for sacred or secular uses; and he believed the architects of the present day were perfectly competent to produce such representations. In replying to this toast he took "the Church" in the widest acceptation of the term, and he hoped that every Nonconformist chapel would follow the Church of England churches, and attain as near as it possibly could to the highest ideals of the architect's art.

MR. ALFRED WATERHOUSE [F.], R.A., proposed "The Bench and Bar." Referring to

the Law Courts in the Strand, he said he had heard the building spoken of in terms of not altogether unmixed praise by those who had to use it. But as for a brief period he had been architectural clerk to the Royal Commission for the Courts of Justice, and afterwards a competitor with Mr. Street, he was in a position to say a word or two in vindication of that great architect's name. Mr. Street was hampered by innumerable instructions—many of a most restrictive character—one, for instance, prescribing the level of the Central Hall, which had to be at least one storey below the level of the Courts. Architects knew the difficulty in which such an instruction would place the designer. It prevented him from making the Hall of use in draining the corridors of the crowds of idlers which frequented them. If Mr. Street had had a clearer field for the exercise of his genius, both Law and Architecture would have had cause to congratulate themselves.

MR. SAMUEL HALL, Q.C., Vice-Chancellor of the Palatine Chancery Court, in reply, said he had often longed to speak to a professional body of architects, and he hoped what he proposed to say would be taken in good part. He was extremely glad to find Mr. Waterhouse proposing this toast, for he should like to say that as barristers they wanted chambers like those designed by Mr. Waterhouse, which he had himself occupied for many years in Lincoln's Inn. Except, perhaps, in the matter of cost, they were models of everything that chambers ought to be. If architects could contrive to give them all the grace of art and all the excellent requisites that were provided in those chambers at something like working prices, Mr. Waterhouse would have earned the eternal gratitude of the Bar. Speaking again for those lawyers who did not enjoy the advantage of living in Manchester, they wanted Courts and Court buildings like the Court buildings in Manchester. He had practised, and sat some time as a Judge, in the Manchester Assize Courts, and had had many years' experience in London in the old Lincoln's Inn Courts, and in the Royal Courts of Justice, and he said again deliberately that what they wanted all over the country were Courts like the Manchester Assize Courts; and what they did not want were Courts like the Royal Courts of Justice. Whatever the cause, he firmly believed Mr. Street was not to blame. With regard to the Central Hall, the main object should have been to provide a place into which everybody should go, into which every Court should empty. It should have formed a quadrangle, with the Courts ranged around where one could go straight across from one Court to another. Instead of that, there was a deep gulf. They might just as well—for all practical purposes of convenience—have dug a deep gulf in the middle of the Strand and fenced it round, and said, "What a beautiful piece of architecture

"this is!" The Courts were very draughty, and the warming, ventilation, and acoustical properties abominable. Speaking as a practical man, he should say that the first thing in all buildings was to adapt them to the purpose for which they were intended; then outside ornamentation would follow, because outside ornamentation, outside design, unless it were fitted with something useful and appropriate inside, was altogether idle and meaningless.

HIS HONOUR JUDGE PARRY proposed "The Corporations of Manchester and Salford," making regretful reference to the absence of the Lord Mayor of Manchester.

MR. ALDERMAN MOTTRAM, Mayor of Salford, acknowledged the toast. The interests of Manchester and Salford, he said, were identical, and both Corporations were greatly indebted to the architects. Manchester had many noble buildings, and three of the finest of them had been erected by Mr. Waterhouse—namely, the Assize Courts, the Town Hall (which was certainly a palace in its way), and Owens College. Salford did not possess many large public buildings, but they were making great progress. The new Technical Institute, erected by a Manchester architect, Mr. Henry Lord, was, he considered, as fine a piece of work of that class as could be found in the North of England, and—he said it with great respect—London architects might take a lesson from it. The School Board offices and schools, too, were designed by Manchester architects, Messrs. Woodhouse & Willoughby, and the buildings did them very great credit.

MR. W. H. TALBOT, Town Clerk of Manchester, also replied to the toast, and, after a reference to the Institute motto and Charter, observed that the opening words of the latter were extremely felicitous: that the association was for the general advancement of civil architecture, it being an art esteemed and encouraged in all enlightened nations as tending greatly to the embellishment of towns and cities. That was exactly what was wanted. The Corporation of Manchester might pride itself upon the improvements it had effected in their city. They had expended two millions of money in improvements, the Town Hall itself having cost at least one million sterling. The proper housing of the working classes, upon which large sums had been spent recently by the Corporation, was a difficult problem, and he wished the Institute could throw some light on it. Whether its powers were like those of the elephant, which was supposed to be able to lift a needle or pull up a tree by its roots, he did not know; but if in its investigations in populous districts a satisfactory scheme were found in operation, the Corporation of Manchester would be extremely grateful for any advice the Institute could afford. They desired to see in Manchester in all their future buildings, if not the

highest aspects of architecture, the simple requirements of stability, utility, and beauty. He was sure that the efforts of the Institute, by raising the standard of public taste, would create in many of the urban communities a desire to erect suitable municipal buildings. He assured those who had come from London as representing the Institute that their presence in Manchester was looked upon as an event of importance.

MR. THOMAS DREW [F.], R.H.A., President of the Royal Institute of the Architects of Ireland (Dublin), who proposed the toast of "Architecture and the Sister Arts," said he did not associate those arts with figures in a pediment, with Sculpture at the top, Painting in the centre, and Architecture as a subsidiary art at the foot. In the last forty years, by the efforts of the profession generally, and of men who had been great masters of the art, Architecture, as the oldest and the mother of the arts, had taken the top place in the pediment, with the sister arts grouping themselves about it. He thought, indeed, it should be represented in the form of a lusty man, with the other arts grouping themselves about his knees. He believed in the freemasonry of art. The city from which he had come was not very small, but it had a marked peculiarity—a wonderful fellowship existed in the arts. He had lived in Dublin thirty years, and there was not a sculptor, painter, or musician there that he did not know, and they lived harmoniously together. What had been done for the arts in the way of advancement? They looked across from Ireland to see what had been done in art education. They looked across to Manchester, to its great Art Gallery, its technical education and examinations, and to the professorship to be founded in Owens College. That was a valuable hint to their lazy old University of Dublin. In Dublin they were behind the times: their municipality had done nothing for architecture and the arts, except, to some extent, music. The secret was that in Manchester the arts were represented on the City Council. Mr. Phythian, whose name was associated with the toast, had a great hold and position on the Municipal Council, and had consequently been able to render signal service to art in Manchester. With regard to the city of Dublin, they had something of old art and natural scenery worth seeing, and he should like to say, on behalf of the Institute of Ireland, that nothing would give them greater pleasure than to meet any of their brethren from Manchester. He could promise them a most cordial and hospitable reception, and he hoped they would accept the invitation.

MR. J. ERNEST PHYTHIAN, Chairman of the Art Gallery Committee of the Manchester Corporation, said that undoubtedly municipal authorities must have a considerable influence upon the progress of the arts. Manchester was pre-eminently and of necessity a utilitarian city.

Art was there, in large measure, an exotic. But many years ago the business-men of Manchester had subscribed the means, and built the Gallery in Mosley Street, which had ever since been devoted to the purposes of art. Their Town Hall testified to the fact that Manchester was now awake to the necessity of linking together architecture, sculpture, painting, and the minor decorative arts. As part of their municipal system of technical instruction, they had a School of Art, to which there would shortly be added a museum, to be used, not merely for the textile products of Manchester, but for the illustration of art. In that museum, also, they had made up their minds to link together architecture, sculpture, and painting, to show, from the past history of art, that, in order that any one of those arts should reach the highest possible level, it must invite the co-operation of the others.

MR. JOHN SLATER [F.], B.A. Lond., proposed "The Victoria University and its Colleges." The time, he said, had long gone by when it was considered that if a boy were intended for mercantile pursuits the best thing to do was to take him from school at the age of fourteen, when his real education was only beginning, and to plunge him at once into the vortex of commercial life, with but a smattering of education. Much the same idea used to be held with regard to the architectural profession. If a boy showed a taste for drawing, his fond parents considered any general culture superfluous, and pitchforked him into an architect's office, there to pick up his general education as best he could. All that had been changed, and the Institute had furthered the change by organising a scheme of examinations, with the object of diverting architectural education into the proper channel. It was quite a common thing now for a boy to pass from school to college, and then, after taking his degree, to turn to business pursuits. His aspirations were raised, and his horizon broadened in consequence. Differences of opinion existed as to the advisability of multiplying the number of degree-giving bodies, but there could be no doubt as to the claims of Manchester, which had done so much for education, that it should be the centre and home of a new University. He remembered the old gloomy mass of inconvenient buildings which formed the first habitation of Owens College; and contrasting them with the stately edifice which now adorned the city, he could not but feel that the Owens College, and the sister colleges of Leeds and Liverpool, had made out a good claim to be constituted into a University. The University buildings of Leeds and Liverpool, as well as the Owens College in Manchester, were due to the genius of one man, and it was a source of great gratification to see among them the eminent architect of those buildings, Mr. Alfred Waterhouse. In making Mr. Waterhouse one of the first recipients of an honorary degree from the

Victoria University, an exceedingly fitting compliment had been paid by the University to the architect of the beautiful shrine in which it was lodged. It was an act which conferred equal honour upon both Mr. Waterhouse and the University. The Liverpool College had already a Chair of Architecture, but Owens College had not. He believed, however, that there was hope of such a Chair being established, and it would be a great advantage when it came to pass. But even without that, there were many classes in the College which architectural students could most advantageously attend. Of course, a new University lacked the traditions and antiquity, the long roll of honoured names—warriors, statesmen, and poets—that had helped to make English history; it lacked the old-world type of buildings surrounded by their immemorial elms and oaks which made a walk through the Colleges of Oxford and Cambridge a dream of delight. The new University had still its traditions to make—its alumni had still to write their names on the pages of history; and as to its surroundings, it might possibly not be beyond the wit of man a hundred years hence to make the surroundings of Manchester beautiful. One thing an enlightened Corporation should always bear in mind: it should endeavour to contrive that the noble buildings of their city should have ample space round them. Nothing was more crippling for a fine building than to be surrounded by a number of mean buildings in close proximity. He had much pleasure in coupling with this toast the name of Dr. Ward, Principal of Owens College.

DR. A. W. WARD, Principal of Owens College and Vice-Chancellor of the Victoria University, in responding, said that with regard to the system of education at the College, there was no institution connected with any of the fine arts which had more actively interested itself in maintaining a connection between professional and general higher education than the Royal Institute of British Architects. They could co-operate with such a College as the Owens College in three ways. It was undoubtedly the right view that those who entered a liberal profession such as architecture should have a preliminary liberal training. Whether that liberal training was received within the walls of a university college or in the higher forms of their great grammar schools mattered not; but that such an education should be received should continue to be insisted on by the Institute. Secondly, it was a mistake, except in cases where technical training was part of the system of a college, to attempt technical training for a particular profession within the walls of the college; and a blunder to endeavour to train architects, or musicians, or professors of any of the fine arts, within the walls of an institution which was not specially equipped for that purpose. But, notwithstanding, in that second stage it was possible to pervade and interpenetrate the system of teach-

ing in university colleges by the spirit of such an art as architecture. Many branches of their training—history, and religious history in particular, to wit—could only be carried on with constant and continuous reference to the fine arts, and to architecture in particular. But, thirdly and lastly, it was true that in university colleges there should be some means found for specially impressing upon their students the history of the great arts. It was not foreign to the purpose of university colleges that professorships of fine arts should be established in them. He heard with great pleasure that thoughts were entertained in Manchester of establishing such a professorship at Owens College, where it would be productive of great good, not only directly but indirectly. He wished the greatest prosperity to the Institute. The most practical way towards securing the means of such prosperity was by influencing County Councils and District Councils, who, under the new democracy, were the dispensers of that which promoted the advancement of the community.

Mr. JOHN ELY [F.] proposed "The Visitors," coupling with the toast the name of Sir Leader Williams. The list of visitors present, he observed, might be taken as an example of the wide range of matters with which architects were connected, and with which they had from time to time to make their acquaintance, and show some knowledge of. Whether they could bring into that list the science of engineering, he could not say. Engineering, as exemplified in the Manchester Ship Canal, might have a great influence upon architecture, and it might be that the boom which prevailed in architecture at the present time in Manchester was owing in some degree to the influence of the Ship Canal.

SIR E. LEADER WILLIAMS, Engineer of the Manchester Ship Canal, responding for the Visitors, said that to some extent engineers and architects were bound together, and sometimes their joint labours resulted in a very happy combination—as in the case of the Tower Bridge. The engineer might sometimes with advantage call in an architect to make his work more sightly. Looking at some of the Roman aqueducts, he felt that the engineering works of the present day were not, after all, what they might be. The great cathedrals, abbeys, and castles of England, however, even engineers must be proud of. The country owed much to architects. Engineers were utilitarians; they brought countries together, and utilised the commercial energies of different worlds; in that sense they helped the architects.

PROFESSOR SIMPSON, Director of the School of Architecture and Applied Arts, Liverpool, proposed "The Royal Institute of British Architects." In his opinion the most interesting work done by the Institute consisted in the very valuable Papers read from time to time in its rooms.

Formerly those Papers were contributed by architects, or others interested in the art; but of late short Papers had been delivered by craftsmen also—representative men in the different arts and crafts allied to architecture. The value of those Papers was not only great as regards the matter contained in them, but they tended to bring about that union between the different arts and crafts which so many were anxious to see accomplished. One exceedingly useful feature of the Institute was its being in touch and in cordial relationship with foreign architects and foreign Societies. By these means all countries were brought into connection, tending to show that Art had no nationality. He himself had benefited by this correspondence when, being called upon to report upon the lighting of picture galleries, the introductions given to him by the Secretary of the Institute to architects in Antwerp and Brussels proved of the greatest assistance, and enabled him to get information otherwise most difficult, if not impossible, to obtain. But the work of the Institute was not confined to benefiting its members only. It offered every year a large number of very valuable prizes. It was interesting to look down the list of the old prizemen, and to see that the men who took the prizes of the Institute ten to fifteen or twenty years ago were the architects of to-day. It was not necessary to refer to the many able and distinguished men who had been and are members of the Institute, but he would mention a few of the distinguished men who had filled the office of President, commencing with Mr. Cockerell, the first architectural President, whose work still lived among them, and was likely to live. They had several fine examples in Liverpool. Then, passing on to William Tite, the champion of Classic, George Gilbert Scott, and George Edmund Street—friendly foes and champions of the great Gothic Revival—Mr. Alfred Waterhouse, and others. It was not easy to fill the post which had been held by such men, but he could feel absolutely certain that it was most worthily filled by the present President. Mr. Penrose had just returned from his labour of love—his visit to Athens—to see if it were not possible to retain that masterpiece of the world's art, the Parthenon, for another 2,000 years. All were glad to have the opportunity of welcoming him back on his return from that visit. Mr. Penrose was not only known as an architect, but as a scholar, and as one of the greatest living authorities on ancient art, his book on Athenian architecture being a standard work. It was with great pleasure that he coupled with the present toast the name of Mr. Penrose.

THE PRESIDENT thanked the Meeting on behalf of the Institute for the extremely kind reception given this toast. The Institute, he regretted to say, did not embrace the whole profession, but it was gaining in that respect. The Council were quite disposed to listen favourably to any modifi-

cations in their procedure which would lead to others joining them, provided that they did not in the slightest degree interfere with the necessary regulation that their practice should be thoroughly professional. The Examinations they had conducted for many years, which had received high encomiums from the Principal of Owens College, would help to maintain the stability of the Institute. Established as it had been for more than sixty years, it might be reckoned in these days quite an ancient institution. He hoped it would continue to prosper, and be more and more successful in advancing the great objects for which it was established. But the point that above all things placed the Institute upon so firm a basis was its connection with the Allied Societies. It was of the greatest possible satisfaction to him that during his tenure of office he had been called upon to preside at this first Annual Dinner in the provinces, and was especially glad that it had been held in Manchester, from the architects of which city the Institute had always derived encouragement. He wished to thank Professor Simpson for his very kind remarks. With regard to the Parthenon, the building, he thought, would be capable of resisting a much greater earthquake than the last. No serious damage had resulted from that, but points of weakness and defects had been disclosed which would be remedied, and without any disfigurement to the work. The President then proposed the toast of "The Allied Societies," and asked Mr. Holden to respond.

MR. JOHN HOLDEN, President of the Manchester Society, said he had very great pleasure in responding to the toast of "The Allied Societies," more particularly as he had been personally associated with all the movements which had resulted in the close connection now existing between the Institute and the Provincial Societies, a connection he hoped would be permanent. He considered that all the members of the profession throughout the country should be under one central control, so far as the broad principles of their work were concerned. There were, no doubt, and would be, some small differences, due to local customs, but the fewer of these the better. On the broad principles they should be united, and there should be no doubt in the minds of the public upon that question. Wherever the architect hailed from, whether from Land's End or John-o'-Groats, the public should know what his duties were and what the nature of his employment should be. That was one of the chief things the connection between the Institute and the Allied Societies would bring about. So far as the Allied Societies were concerned, the Institute might always rely upon loyal support from them in all matters connected with the honour and integrity of the profession. The Manchester Society fully appreciated the honour of the Institute holding its first non-Metropolitan Dinner in Manchester.



9, CONDUIT STREET, LONDON, W., 11th June 1896.

CHRONICLE.

THE ANNUAL ELECTIONS.

THE COUNCIL.

At the Business General Meeting of Monday, 8th inst., the Council for the year of office 1896-97 were declared to be duly elected as follows:—

PRESIDENT.—Professor Aitchison, A.R.A.

VICE-PRESIDENTS.—Alex. Graham, F.S.A.; Aston Webb, F.S.A.; Ernest George; and William Milner Fawcett, M.A.Cantab., F.S.A.

HON. SECRETARY.—William Emerson.

MEMBERS OF COUNCIL.—John Belcher; William Douglas Caröe, M.A.Cantab, F.S.A.; John McKean Brydon; Richard Phené Spiers, F.S.A.; Edward William Mountford; Arthur Cates; John Alfred Gotch, F.S.A. (Kettering); John Slater, B.A.Lond.; Charles Hadfield (Sheffield); Campbell Douglas (Glasgow); Thomas Blashill; Paul Waterhouse, M.A.Oxon.; Henry Louis Florence; Edwin Thomas Hall; Thomas William Cutler; Benjamin Ingelow; Joseph Oswald (Newcastle); and Edward Augustus Gruning.

ASSOCIATE-MEMBERS OF COUNCIL.—William H. Atkin Berry and James Sivewright Gibson.

REPRESENTATIVES OF ALLIED SOCIETIES.—William Larkins Bernard (Bristol Society); Albert Nelson Bromley (Nottingham Society); Thomas Drew, R.H.A. (Royal Institute of Ireland); John Ely (Manchester Society); William Henman (Birmingham Association); Henry Perkin (York Society); Arnold Thorne (Devon and Exeter Society); Edwin Montgomery Bruce Vaughan (Cardiff Society); and Thomas Lennox Watson (Glasgow Institute).

REPRESENTATIVE OF THE ARCHITECTURAL ASSOCIATION (London).—Beresford Pite.

THE STANDING COMMITTEES.

At the same Meeting the following Fellows and Associates were declared duly elected to serve on the respective Standing Committees for the ensuing year of office, viz.:—

ART STANDING COMMITTEE.

Fellows.—Ernest George; Alfred Waterhouse, R.A.; John McKean Brydon; John Belcher; Edward Ingress Bell; William Douglas Caröe

M.A.Cantab., F.S.A.; Edward William Mountford; James Brooks; Sir Arthur Blomfield, A.R.A.; and John Macvicar Anderson.

Associates.—Henry Thomas Hare; Beresford Pite; Owen Fleming; John Begg; James Sive-wright Gibson; and William Henry Romaine-Walker.

LITERATURE STANDING COMMITTEE.

Fellows.—Alex. Graham, F.S.A.; Richard Phené Spiers, F.S.A.; Arthur Edmund Street, M.A.Oxon.; Paul Waterhouse, M.A.Oxon.; Henry Louis Florence; Benjamin Ingelow; Sydney Smirke; Charles Harrison Townsend; William Frederick Unsworth; and John Hebb.

Associates.—Andrew Noble Prentice; Percy Scott Worthington, M.A.Oxon.; Leslie Waterhouse, M.A.Cantab.; Arthur Smyth Flower, M.A.Oxon.; Ravenscroft Elsey Smith; and Banister Flight Fletcher.

PRACTICE STANDING COMMITTEE.

Fellows.—Edwin Thomas Hall; Edward Augustus Gruning; Samuel Flint Clarkson; Thomas Batterbury; Edmund Woodthorpe, M.A.Oxon.; Joseph Douglass Mathews; Lacy William Ridge; Henry Cowell Boyes; Joseph Stanislaus Hansom; and Walter Hilton Nash.

Associates.—William H. Atkin Berry; Henry Thomas Hare; George Richards Julian; Augustus William Tanner; Frederick Henry Appleton Harcastle; and Robert Stark Wilkinson.

SCIENCE STANDING COMMITTEE.

Fellows.—Lewis Angell, M.Inst.C.E.; Percival Gordon Smith; William Charles Street, Assoc.Inst.C.E.; Herbert Duncan Searles-Wood; Arthur Baker, R.C.A.; John Salmon Quilter; William Warlow Gwyther; Frederic Richard Farrow; Lewis Solomon; and Benjamin Taberner.

Associates.—Thomas Locke Worthington; Henry William Burrows; Max. Clarke; Matthew Garbutt, Assoc.M.Inst.C.E.; Bernard John Dicksee; and George Pearson.

Expiration of Mr. Penrose's Presidency.

At the conclusion of the business before the Meeting of the 8th inst., a vote of thanks to the outgoing President, Mr. Penrose, moved by Mr. John Slater [F.], seconded by Mr. Alex. Graham, F.S.A., *Vice-President*, and supported by Mr. Wm. Woodward [A.], was carried by acclamation. The speakers' remarks, which were received by the Meeting with every token of appreciation, together with Mr. Penrose's reply, here follow:—

Mr. JOHN SLATER [F.]: Gentlemen, I am quite sure you will think it fitting that on this the last occasion upon which our esteemed President, Mr. Penrose, sits in that chair—although I hope that he may be spared for many years to attend the meetings of the Institute—we should pass a vote of thanks to him for his conduct of our proceed-

ings during the two years he has been President. We must all feel that the annals of the Institute would have been wanting in something if the name of Mr. Penrose, who has a European reputation, had not been inscribed on the roll of its Presidents. It would be impertinent on my part to attempt to detail to you his many qualifications for the office. We must all rejoice that his energy and activity have enabled him to fill the office as he has done, and with so much advantage to the Institute, at his late stage of life. We on the Council shall ever remember his presidency for the kindness with which he has met and presided over us; and I am confident that the present assembly will endorse what I say by supporting a very hearty vote of thanks to him, and unite in wishing him many years of activity to prosecute his architectural and archaeological labours.

Mr. ALEX. GRAHAM [F.], F.S.A.: Gentlemen, as a matter of form such a motion as this has to be seconded, and I have the honour as well as the pleasure of performing that duty. You will all bear with me in saying that nothing but kindness and courtesy have proceeded from that chair during the last two years. The President has not only given up his valuable time to the duties of his office, but has shown great consideration to the members of the Council and to every member of the Institute whenever he has been called upon to interest himself in its affairs. One and all must unite in a feeling of the deepest regret that his term of office has expired, and that we are now to lose his excellent and amiable services as President. Let us hope that he may be among us for many years to come, and that he may still continue to take a part in the affairs of the Institute.

Mr. WILLIAM WOODWARD [A.]: Mr. President, I do not profess to represent the Associates of the Institute, but I am perfectly sure that I am only giving expression to the views of every Associate when I say that we thoroughly endorse every word that has fallen from Mr. Slater and Mr. Graham.

Mr. PENROSE: Gentlemen, I have to thank Mr. Slater and Mr. Graham, and also Mr. Woodward, for the extremely kind way this vote of thanks—which I know myself how little I have deserved—has been proposed and supported, and especially to thank the Meeting for giving it so gratifying a reception. I have to acknowledge a debt of gratitude to all the members of the Institute for the generous way they have supported me in this chair, and it is a matter of the greatest satisfaction to me to feel that I leave with you a kindly remembrance of the past two years, during which I have had the honour of occupying this position.

The Midsummer Examinations: Preliminary and Intermediate.

The Preliminary Examination of architects' pupils and others desirous of qualifying as Pro-

bationers R.I.B.A. will be held in London, Manchester, and Bristol on the 16th and 17th inst. Of the 133 applicants admitted, 23 were previously examined and relegated to their studies, and 25 have been exempted from sitting. The Intermediate Examination of Probationers for registration as Students R.I.B.A. will be held at London and Manchester on the 16th inst. and three following days. To this Examination 68 applicants have been admitted, of whom 20 were relegated from previous Examinations. The London Examinations will be held at the Examination Hall, Victoria Embankment, but the Oral portion of the Intermediate will take place at the Institute on the 18th and 19th inst. The Examinations at Manchester and Bristol respectively will be conducted by the Allied Societies of those centres—that at Manchester is to be held at Standard Chambers, 65, King Street, and that at Bristol at the Fine Arts Academy, Queen's Road, Clifton.

The Trinity Hospital or Almshouses [p. 91].

Every one interested in the preservation of London's historical monuments will have learned with satisfaction the decision of the Charity Commissioners in the matter of the Trinity Almshouses. The grounds of the opposition to their removal were stated in the Memorial submitted by the Council of the Institute last year, and evidence in favour of their preservation was given by Mr. Penrose and Mr. Macvicar Anderson at the subsequent inquiry held by the Assistant Commissioner [p. 91]. The Commissioners made known their decision on the 23rd ult., the concluding paragraphs of their judgment being as follows:—

Upon a careful consideration of all the circumstances, the Commissioners, while fully recognising the fact that the corporation have framed their proposals in what they conceive to be the best interests of the beneficiary class, are of opinion that a sufficient case is not made out for any material reduction in the number of the existing almshouses. They are, however, disposed to think that the position and character of the fourteen houses appropriated to Grigg's almswomen, and standing at the extreme north of the site, would justify their removal upon such terms as to secure suitable houses for the present inmates and their successors.

The Commissioners will be prepared to consider in concert with the corporation the details of a scheme for effecting this purpose, and for the general regulation and consolidation of the various trusts which now affect the almshouses of the corporation. The almshouse rebuilding fund might with advantage be included in such a scheme, provision being made for its application primarily for the purpose of a repair fund.

The late Edward Armitage [H.A.], R.A.

Edward Armitage, R.A., who died at Tunbridge Wells on the 24th ult. at the age of seventy-nine, had been an Hon. Associate of the Institute since the formation of that class in 1877. Born in London on 20th May 1817, he was educated in France and Germany. In 1837 he entered the studio of Paul Delaroche in Paris, and assisted

that master in the decoration of the hemicycle at the School of Fine Arts. Three years later he sent a large picture, "Prometheus Bound," to the Paris Exhibition of Living Painters. In the following year he contributed to the Cartoon Exhibition at Westminster Hall "The Landing of Julius Caesar in Britain," which took a first-class prize of £300. In 1844 he contributed to the Westminster Hall exhibition of works in fresco, but without success. At the third competition in 1845 he took a prize of £200 for a cartoon and coloured design, "The Spirit of Religion"; and finally, in 1847, another first prize of £500 was awarded to him for an oil painting, "The Battle of Meerane," now in the possession of the Queen. During the Russian War he visited the Crimea and painted two pictures, "The Heavy Cavalry Charge at Balaklava" and "The Stand of the Guards at Inkermann." In 1858 he produced a colossal figure entitled "Retribution," and intended to symbolise the suppression and punishment of the Indian Mutiny. In the Upper Waiting-hall of the Palace of Westminster he executed two experimental frescoes, "The Thames with its Tributaries" and "The Death of Marmion." His mural paintings include figures of Christ and His Twelve Apostles, executed for the apse of the Roman Catholic church of St. John at Islington; "St. Francis and his Early Followers before Pope Innocent III." in the same church; and monochrome wall-paintings at University Hall, Gordon Square, designed as a memorial to the late Crabb Robinson. To the Academy Exhibition of 1872 he contributed a design for a frieze entitled "A Dream of Fair Women," in which were grouped in one long panorama the women of the Old Testament. Mr. Armitage was elected A.R.A. in 1867 and R.A. in December 1872, and in 1875 was appointed Professor and Lecturer on Painting to the Royal Academy.

Additions to the Library.

Papers (No. 9) read before the Engineering Society of the Toronto School of Practical Science have been presented by Professor C. H. C. Wright. The articles on "Lightning Arresters," by Mr. H. P. Elliott; "Planimeters," by Mr. J. W. Bain; "The Action of Heat on Cement," by Mr. J. S. Dobie; and "Aspect and Prospect," by Professor Wright, are amongst those in the volume likely to have most interest for architects. It should, however, be also mentioned that the *Papers* conclude with the results of tests made in the laboratory of the School of Practical Science, by Messrs. Wright and Keele, with the object of determining resistance to crushing offered by piers of ordinary brick, constructed in the same manner and of the same materials as those most commonly used in and about Toronto.

Professor Wright has also presented an illustrated pamphlet entitled *Röntgen Radiation*, by Mr. C. J. McLennan, Assistant Demonstrator in

Physics at Toronto University, which gives an account of experiments in the new photography at the School of Practical Science, Toronto.

The *Engineering Magazine* for June contains an interesting article, amply illustrated and containing numerous plans, on "Domestic Architecture in Washington City," by Mr. Glenn Brown. The latest quarterly part of the *Architectural Record* (Vol. V. No. 4) contains contributions by Professor Banister Fletcher [F.] on "The Smaller Houses of the English Suburbs and Provinces," numerously illustrated from photographs of buildings by Messrs. George [F.] and Peto, Mr. Norman Shaw, R.A., Mr. Colcutt [F.], Mr. Basil Champneys, &c.; by Mr. Barr Ferree [*Hon. Corr. M.*] on "French Cathedrals"; and by Mr. G. A. T. Middleton [A.] on "Linear Perspective," &c.

REVIEWS. XLII.

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LONDON CHURCHES.

London Churches of the XVIIIth and XVIIIth Centuries. A Selection of the most remarkable Ecclesiastical Buildings, including St. Paul's Cathedral, erected within and around the Ancient City Walls between the years 1630 and 1730, from the Designs of Inigo Jones, Sir Christopher Wren, Nicholas Hawksmoor, and James Gibbs. A Series of Sixty-four Plates, and numerous other illustrations. With Historical and Descriptive Accounts by George H. Birch, F.S.A. Fo. Lond. 1896. Price £4. 4s. net. [B. T. Batsford, 94, High Holborn.]

Every week makes it more possible for the architect not only to confine the practice of his art to the immediate neighbourhood of his drawing-board, but to survey architecture at large from the same coign of vantage. Mr. Batsford's sumptuous folio just issued, if it does not drive us out hotfoot to see again for ourselves what is here so alluringly displayed, will enable us to practise a still severer economy of boot-leather. Though several of his pupils and successors are represented, ultimately Wren may be said to have been as responsible for their designs as for his own. Whether by the mute confession of his influence, or by the display of a conscious effort to strike an original note, all of them reveal the fount of their inspiration. The whole book, in a word, is a glorification of the master-mind. All lovers of Wren, then—and who would deny himself the title?—will accept this volume as a noble contribution to the full illustration of his life and work, which we must confidently look to the future to give us. So far, even the circumstances of his life have never been quite adequately treated. Much less have his representative works been brought together with any completeness. The present instalment is the nearest approach to such a consummation. But a man so monumental, of so true a modesty, so astonishing a self-reliance, of a genius so complete, deserves a memorial on a scale proportionate to his own.

He is the Gulliver of our Lilliput, and if the credit of English architecture stands high it is partly because we placed our ladders on his broad shoulders. But this is not the place for an appreciation of Wren, and it remains to notice briefly the volume itself. Of the illustrations we may say at once that they are as charming in tone and artistic quality as the points of view are, generally speaking, representative and characteristic. If the pen-and-ink sketches are hardly up to the level of the photographs, they form a very insignificant fraction of the whole, while the letterpress of the Curator of the Soane Museum is just what one would have looked for from so capable and learned a writer. He is, perhaps, not so strictly impersonal as the nature of the publication might have suggested. It is difficult, indeed, to be angry with enthusiasm in such a cause, or to be other than indulgent to the righteous indignation which some modern improvements provoke in him; but the strictures would be better away, while the judgments they convey should be held for good and all, not taken up and laid down. Unhappily Mr. Birch is not always strictly consistent. Speaking of St. Antholin, Budge Row, for instance, he says: "Its beautiful tower and spire was the one existing object which could possibly have relieved the utter banality and commonplace appearance of Queen Victoria Street"; but he seems to have forgotten this by the time he reaches St. Benet, Paul's Wharf, for we now learn that "the church was brought rather prominently into view by the formation of this fine thoroughfare." This "fine thoroughfare" is "banal," we admit; the Charity Commissioners, even in their corporate capacity, have still humanity enough to be entitled to err, and avail themselves of the privilege;—that also may be conceded; but Mr. Birch's otherwise satisfactory descriptions would not have been the worse if he had ignored these lapses, or showed a more judicial temper in recording them, while criticism of modern work, whether one agrees with or not—and surely his paean of jubilation over the new reredos at St. Paul's will not touch a responsive chord in every breast—seems singularly out of place. The dignity of the publication demanded the suppression of personal predilections, and the sinking of the partisan in the dispassionate chronicler.

A. E. STREET.

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TEMPLES OF KASHMIR.

The Tarikh-i-Rashidi of Mirza Muhammad Haidar, Dughlat: A History of the Moghuls of Central Asia. An English version, edited, with Commentary, Notes, and Map, by N. Elias, H.M. Consul-General for Khorasan and Sistan. The translation by E. Denison Ross. 8o. Lond. 1895. Price 25s. net. [Sampson Low, Marston & Co., St. Dunstan's House, Fetter Lane.]

The author of this book, generally known as "Mirza Haidar," was born at Tashkand in the last year of the fifteenth century; and the history

was written in Kashmir about the years 1544-46. It is strictly historical, and very valuable in that character in relation to Central Asia, and for the details it contains about some of the movements of the Emperor Baber, who was cousin to Mirza Haidar. It also contains some interesting particulars about the Emperor Humayan after his defeat by Shir Khan. Humayan and his principal Amirs retreated to Lahore; the Mirza was with them, and he entered Kashmir, which he conquered and ruled afterwards. It was then that he wrote this history of his time. The author incidentally alludes at times to houses and architectural remains, which are valuable from the date at which he writes, and more particularly owing to the scarcity of references of this kind in that part of the world. His description of the old Hindu temples, or "idol temples," as the Mirza calls them, of Kashmir, and to which he devotes a chapter, would have been of great interest if it had been correct. As it is, the chapter has only one lesson to give us, and that is, a warning not to place too much trust in early historical authors when they write on architectural details. This chapter was kindly communicated to the JOURNAL of the Institute in April 1894 * by Mr. Elias, with some very accurate notes upon its wild exaggerations, and in the published volume he has still further extended the criticism. It is difficult to explain how an intelligent man like the Mirza could possibly make such palpable blunders in describing the most simple details. If he had never seen the temples, and written only from hearsay, there would have been no difficulty in the matter; but he was on the spot, he was ruler or king at the time, and could have had every stone measured. Everything he touches upon is magnified in the most Broddingnagian style. The stones range, he says, from three to twenty *gaz*—now the smallest *gaz* or "ell" is one of eighteen inches, which would give us stones of thirty feet in length. His description evidently applies to the Marttand Temple, which I sketched, as well as most of the Kashmir temples, in 1861. I made no measurements, but the size of the stones did not seem at the time to be a matter that would call for any particular notice. If there had been stones of thirty, or even twenty, feet in length, they would most certainly have attracted me. Mirza Haidar also mentions pillars forty or fifty *gaz* in height, figures that are also wildly in excess of the truth. He describes each of these temples as having domes; this again is far from being correct. At the Pandrettan and Páyeche Temples the roofs exist at the present day, and they are the same as the other temples had. They are pyramidal, and are evidently derived from a wooden original, of which I have sketches, made in the Himalayas. As a matter of fact the early type may still be seen in the roof of the large masjid in

Srinugger.* Fergusson was inclined to suppose that the Marttand Temple never had a stone roof, and that in this particular instance it was of wood.†

The "Description of Kashmir" begins at Chapter xvii., and he gives the following, which may be supposed to refer to the capital city:—

In the town there are many lofty buildings, constructed of fresh cut pine. Most of these are at least five storeys high, and each storey contains apartments, halls, galleries, and towers. The beauty of their exterior defies description, and all who behold them for the first time bite the finger of astonishment with the teeth of admiration. But the interiors are not equal to the exteriors [p. 425].

One reason for quoting the whole of the above passage is to show writers for this JOURNAL that there may be, although old, what would now appear as quite a new style of architectural criticism. A discussion on domes and pendentives, if carried on after the manner of Mirza Haidar, would be quite refreshing. To one familiar with the houses of the Happy Valley, as they are at the present day, the extract has a further interest; because houses "at least five storeys high" are no longer to be found there. If the Mirza is not again exaggerating, the houses he describes must have been very similar to the Tibetan houses, such as the old palace at Leh, or the tall buildings of the Lamaseries, with innumerable storeys. This would be an interesting point, if we could be sure of it, that in the sixteenth century the houses in Kashmir were the same as we now find in Tibet; but our authority is not a safe guide, and judgment must be deferred. His account of the buildings at Yarkand indicates a style somewhat the same as that which he says exists in Kashmir:

In the suburbs are about ten gardens, in which are erected lofty edifices, containing about a hundred rooms each. All these rooms are fitted with shelves and recesses in the walls [*tak* and *tákcha bandi*]; they have ceilings of plaster-work and dados of glazed tiles [*kashi*], and frescoes [p. 297].

The "lofty edifices" and the "hundred rooms" again recall the old palace at Leh; but a Tibetan style at Yarkand would not be a surprise, while the recesses, plaster-work, and glazed tiles are suggestive of Persian influence. These recesses, or niches in panels, are not only useful but ornamental, and might be recommended to architects at home here; they are a marked feature of the Mohammedan style of domestic architecture in Delhi and Agra, where I first saw and appreciated their merits.

Mirza Haidar alludes more than once to buried cities, towns, domes, &c., in the desert which stretches eastward from Kashgar and Yarkand to Lob Nor. These have been mentioned by other authors as having been buried under the sands—which is in harmony with what the Mirza says. Modern travellers give us descriptions of the same

* See illustration of this masjid in Fergusson's *Indian and Eastern Architecture*, p. 609; and its roof can be compared with those of two Hindu temples at pp. 294, 295.

† An illustration of this temple is given in the JOURNAL Vol. I. 3rd Series, p. 111.

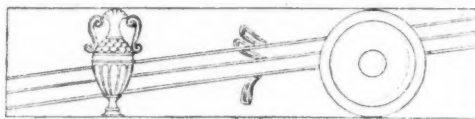
* JOURNAL, Vol. I. 3rd Series, pp. 436-38.

region, and all agree in representing it as a wretched desert, with shifting sands blown by the wind. Some change must have come over this locality; this supposition is based on an account of at least one town in it, written in the fifth century, by Fa-Hian. This was Khotan, which this Buddhist pilgrim visited on his way from China to India. "This country," he says, "is prosperous and rich [happy]: the people are very wealthy."* There were numerous monasteries, and the one the pilgrim lodged in had three thousand Buddhist monks. He describes the great car festival, which lasted fourteen days, and every detail he gives suggests the large and thriving population that must have been there.

The Mirza supplies us with some knowledge about the Moghuls which is worthy of notice in reference to the Moghul architecture of India. Fergusson, in writing of that particular style, expresses himself as if the Moghuls had a great love for fine and magnificent buildings, and their desire for splendid tombs is often dwelt upon; his words would almost lead one to suppose that these people had brought this innate taste for beauty and grandeur in architecture from their own country. Now, Mirza Haidar was a Moghul himself, and his book is a history of Moghulistan, and here is what he says of his own people, and the condition in which they were at the time he lived, which was exactly the time when Baber, the first of the Moghuls, founded that dynasty in India: "Most of the Moghuls had never possessed, or even lived in, a village—nay, had never even seen cultivation. They were as wild as the beasts of the mountains" [p. 153]. Again: "At the beginning of the reign of Yunus Khan, all the Moghuls dwelt, according to their old custom, in Moghulistan: they avoided all towns and cultivated countries [and regarded them] with great repugnance" [p. 156]. "The Moghuls had always been this kind of [nomadic] people" [*ibid.*]. This means that they were perfect nomads, living in tents, and could not have had architecture of any kind. If Fergusson had had the advantage of reading this history of the Moghuls, he would most likely have expressed himself differently. Still, I think his words scarcely convey the meaning he intended, for Fergusson knew perfectly well that the Moghul style was only that phase of the Mohammedan architecture of India which belonged to the period of the Moghul dynasty. The Moghuls brought nothing with them, but during their rule the Mohammedan power reached its zenith, and was able, from its wealth, to produce a series of splendid structures, almost all of which may yet be seen in or near to Delhi and Agra, and hence the reputation of the style; but nothing that belongs to it came from Moghulistan.

WILLIAM SIMPSON.

* Beal's Translation, Vol. I. p. xxv.



MINUTES. XV.

At the Fifteenth General Meeting (Business) of the Session, held Monday, 8th June 1896, at 8 p.m., Mr. F. C. Penrose, F.R.S., *President*, in the Chair, with 15 Fellows (including 10 members of the Council), and 8 Associates (including 2 members of the Council), the Minutes of the Meeting held 18th May 1896 [p. 443] were read and signed as correct.

The Hon. Secretary announced the decease of Edward Armitage, R.A., *Hon. Associate*.

The receipt of donations to the Library was announced [see *Supplement*], and an expression of thanks to the several donors was ordered to be entered on the Minutes.

THE ANNUAL ELECTIONS, 1896-97.

THE COUNCIL.

The President read the report of the Scrutineers appointed by the Annual General Meeting [p. 412] to conduct the election of the Council.* The following were declared to be the results:—

President.—Professor Aitchison, A.R.A. [unopposed].

Vice-Presidents (4).—William Milner Fawcett; Ernest George; Alexander Graham; Aston Webb [unopposed].

Hon. Secretary.—William Emerson [unopposed].

Members of Council (18).—John Belcher, 391; William Douglas Caröe, 389; John McKean Brydon, 385; Richard Phené Spiers, 381; Edward William Mountford, 379; Arthur Cates, 374; John Alfred Gotch, 373; John Slater, 363; Charles Hadfield, 360; Campbell Douglas, 357; Thomas Blashill, 353; Paul Waterhouse, 348; Henry Louis Florence, 341; Edwin Thomas Hall, 337; Thomas William Cutler, 333; Benjamin Ingelow, 328; Joseph Oswald, 316; Edward Augustus Gruning, 309. The following candidates are not elected:—Henry Heathcote Statham, 287; Percival Gordon Smith, 263; William Young, 257; Ralph Selden Wornum, 228.

Associate-members of Council (2).—William H. Atkin Berry, 290; James Sivewright Gibson, 230. The following candidates are not elected:—Thomas Miller Rickman, 196; Arthur Smyth Flower, 154.

Representatives of Allied Societies (9).—William Larkins Bernard (Bristol Society of Architects); Albert Nelson Bromley (Nottingham Architectural Society); Thomas Drew (Royal Institute of the Architects of Ireland); John Ely (Manchester Society of Architects); William Henman (Birmingham Architectural Association); Henry Perkin (York Architectural Society); Arnold Thorne (Devon and Exeter Architectural Society); Edwin Montgomery Bruce Vaughan (Cardiff, S. Wales, and Monmouthshire Architects' Society); Thomas Lennox Watson (Glasgow Institute of Architects) [unopposed].

Representative of the Architectural Association (London).—Beresford Pite [unopposed].

[The above members declared to have been duly elected compose the Council.]

* Of the fourteen members (8 Fellows and 6 Associates) appointed to act as Scrutineers, eight attended, viz.:—*Fellows*, Messrs. F. T. Baggallay, R. F. Chisholm, John Norton, John S. Quilter, and Hugh Stannus; *Associates*, Messrs. Max. Clarke, H. Vaughan Lanchester, and Herbert A. Satchell. A note appended to the Scrutineers' Report states that 468 envelopes containing voting-papers were received by the Scrutineers, out of which 29 papers were set aside in consequence of informality.

Auditors.—*Fellow*, Edmund Woodthorpe; *Associate*, Owen Fleming [unopposed].

THE STANDING COMMITTEES.

The President read the Report of the Scrutineers appointed by the Annual General Meeting [p. 412] to conduct the election of the four Standing Committees. The following were declared to be the results:—

Art Standing Committee.

Fellows (10).—Ernest George, 391; Alfred Waterhouse, 361; John McKean Brydon, 353; John Belcher, 344; Edward Ingress Bell, 344; William Douglas Caröe, 343; Edward William Mountford, 343; James Brooks, 342; Sir Arthur Blomfield, 321; John Macvicar Anderson, 313. The following candidates are not elected:—*William Young*, 186; *Ralph Selden Wornum*, 157; *William Samuel Weatherley*, 139.

Associates (6).—Henry Thomas Hare, 360; Beresford Pite, 315; Owen Fleming, 272; John Begg, 271; James Sivewright Gibson, 259; William Henry Romaine-Walker, 250. The following candidates are not elected:—*George Campbell Sherrin*, 243; *George Kenyon*, 234; *William Arthur Webb*, 140.

Literature Standing Committee.

Fellows (10).—Alexander Graham, 379; Richard Phené Spiers, 379; Arthur Edmund Street, 374; Paul Waterhouse, 366; Henry Louis Florence, 358; Benjamin Ingelow, 355; Sydney Smirke, 352; Charles Harrison Townsend, 331; William Frederick Unsworth, 303; John Hebb, 244. The following candidate is not elected:—*George Henry Bibby*, 233.

Associates (6).—Andrew Noble Prentice, 352; Percy Scott Worthington, 339; Leslie Waterhouse, 338; Arthur Smyth Flower, 336; Ravenscroft Elsey Smith, 292; Banister Flight Fletcher, 240. The following candidates are not elected:—*Arthur Thomas Bolton*, 227; *John Tavenor Perry*, 190.

Practice Standing Committee.

Fellows (10).—Edwin Thomas Hall, 307; Edward Augustus Gruning, 303; Samuel Flint Clarkson, 289; Thomas Batterbury, 284; Edmund Woodthorpe, 278; Joseph Douglass Mathews, 272; Lacy William Ridge, 270; Henry Cowell Boyes, 256; Joseph Stanislaus Hansom, 255; Walter Hilton Nash, 244. The following candidates are not elected:—*Thomas Harris*, 208; *Franc Sadleir Breton*, 186; *William Warlow Gwyther*, 169; *Graham Clifford Awdry*, 160; *Alexander Henry Kersey*, 158; *George Hubbard*, 118.

Associates (6).—William H. Atkin Berry, 349; Henry Thomas Hare, 329; George Richards Julian, 308; Augustus William Tanner, 307; Frederick Henry Appleton Hardcastle, 279; Robert Stark Wilkinson, 268. The following candidates are not elected:—*Francis Thomas Wilberforce Goldsmith*, 251; *Thomas Edward Mundy*.

Science Standing Committee.

Fellows (10).—Lewis Angell, 359; Percival Gordon Smith, 355; William Charles Street, 352; Herbert Duncan Searles-Wood, 347; Arthur Baker, 335; John Salmon Quilter, 317; William Warlow Gwyther, 312; Frederic Richard Farrow, 295; Lewis Solomon, 286; Benjamin Taberner, 276. The following candidates are not elected:—*Henry Dawson*, 275; *Professor Banister Fletcher*, 275.

Associates (6).—Thomas Locke Worthington, 312; Henry William Burrows, 305; Max Clarke, 304; Matthew Garbutt, 302; Bernard John Dicksee, 277; George Pearson, 266. The following candidates are not elected:—*Robert Langton Cole*, 209; *Edward William Malpas Wonnacott*, 188; *Bruce John Capell*, 135.

On the motion of the Hon. Secretary, seconded by Mr. Thomas Blashill [F.], a cordial vote of thanks was

passed to the Scrutineers for their services in conducting the elections.

ELECTION OF MEMBERS.

The President, referring to the statement made by the Chairman of the Meeting of the 18th May [p. 436] relating to the candidature and election of Fellows, announced that the matter was still under consideration by a Special Committee of the Council. In reply to a question from Mr. Woodward, the President stated that it was impossible to fix the precise date when the Report would be ready.

The following candidates for membership were elected by show of hands, under By-law 9, namely:—

As Associates (7).

JAMES McCURRYE CABLE, F.S.I. (Qualified 1895).
GEORGE MACFIE POOLE (Qualified 1895), Sydney, N.S.W.

ARTHUR ERNEST McKEWAN (Probationer 1890, Student 1891, Qualified 1894), Birmingham.

HERBERT HENRY DUNN (Qualified 1895), Lincoln.

JOHN FORD (Qualified 1895), Devon.

JAMES GUTHRIE HENDERSON (Qualified 1895).

JAMES GREENWOOD STEPHENSON (Qualified 1894).

As Hon. Associates (6).

ARTHUR THOMAS WALMSLEY, M.Inst.C.E.

SIR BENJAMIN BAKER, K.C.M.G., F.R.S., LL.D., President of the Institution of Civil Engineers.

HORATIO WALTER LONSDALE.

T. RAFFLES DAVISON.

HAY FREDERICK DONALDSON, M.Inst.C.E.

JAMES ANDREW STRAHAN, M.A., LL.B., Barrister-at-Law, Regius Professor of Law, Queen's College, Belfast.

A vote of thanks to the retiring President, Mr. Penrose, moved by Mr. John Slater [F.], B.A., and seconded by Mr. Alex. Graham [F.], F.S.A., having been carried by acclamation, and briefly acknowledged [p. 463], the proceedings terminated, and the Meeting separated at 9 p.m.

ALLIED SOCIETIES.

OFFICERS AND COUNCILS 1896-97.

The Liverpool Society.

President, Mr. Geo. Bradbury; Council, Messrs. A. Culshaw [F.], T. E. Eccles [A.], H. W. Keef, Professor F. M. Simpson, E. A. Ould, W. E. Willink [A.], J. Woolfall, J. W. Blakey [A.], T. W. Haigh; Hon. Treasurer, Mr. J. Dod; Hon. Sec., Mr. H. L. Beekwith; Library Committee, Messrs. H. A. Matear [F.], J. Woolfall, T. M. Reade [F.], T. W. Haigh, and J. W. Blakey [A.]; Meeting and Excursions Committee, Messrs. A. Culshaw [F.], T. Cook [F.], E. P. Hinde [A.], and F. E. Pearce Edwards [A.]; Students' Committee, Professor Simpson, Messrs. T. Harnett Harrison [F.], J. W. Blakey [A.], and Arnold Thorneley.

The Royal Institute of Ireland.

President, Mr. Thomas Drew [F.], R.H.A.; Hon. Secretary and Treasurer, Mr. Albert E. Murray [F.], A.R.H.A.; Council, Messrs. J. J. O'Callaghan, J. R. Carroll [F.], George C. Ashlin, R.H.A.; Charles Geoghegan, William M. Mitchell, R.H.A., Sir Thomas N. Deane, R.H.A., R. C. Millar [F.], J. H. Pentland [F.], C. McCarthy, and W. K. Parry; Auditors, Messrs. Fred. Batchelor and R. C. Orpen.

The Cardiff, S. Wales, and Monmouthshire Society.

President, Mr. E. M. Bruce Vaughan [F.]; Hon. Secretaries, Messrs. J. Coates Carter and J. H. Phillips; Hon. Assistant Secretary, Mr. C. L. Wilson.

